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=> d l35 bib ab hitstr tot

L35 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2008 ACS ON STN

AN 2004:489587 HCAPLUS Full-text

DN 141:53798

TI Oxidation catalyst and production method of ethylene oxide

IN Watanabe, Hisayuki; Shiga, Norihito; Saruhashi, Koichiro

PA Nissan Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2004167474	A	20040617	JP 2003-335169	20030926 <--
PRAI	JP 2002-314476	A	20021029	<--	

AB The invention refers to a oxidation catalyst for the oxidation or olefins to form ethylene oxide comprising a W compound and tertiary fluoroammonium salt I [R10 = fluoro-substituted C1-15 alkyl; r = 1, 2; X = halo; R5-9 = H, halo, cyano, C1-10 alkyl (may be substituted with C6-10 aryl, C1-10 alkoxy, or benzyloxy), C1-10 alkoxy, benzyloxy or phenyl; any two of R5-9 may join together to form 1 or 2 condensed benzene rings].

IT 25935-14-2 156991-89-8 706818-61-3

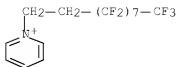
706818-64-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidation catalyst and production method of ethylene oxide)

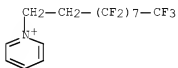
RN 25935-14-2 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



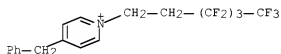
RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



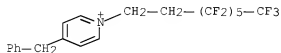
RN 706818-61-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-4-(phenylmethyl)-, iodide (1:1) (CA INDEX NAME)

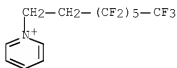


RN 706818-64-6 HCAPLUS

CN Pyridinium, 4-(phenylmethyl)-1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, iodide (1:1) (CA INDEX NAME)



AN 2003:955318 HCAPLUS [Full-text](#)
 DN 140:132226
 TI Fluorinated surfactant templating of ordered nanoporous silica
 AU Rankin, Stephen E.; Tan, Bing; Lehmler, Hans-joachim; Knutson, Barbara L.
 CS Chemical and Materials Engineering Department, University of Kentucky,
 Lexington, KY, 40506-0046, USA
 SO Materials Research Society Symposium Proceedings (2003),
 775(Self-Assembled Nanostructured Materials), 47-52
 CODEN: MRSPDH; ISSN: 0272-9172
 PB Materials Research Society
 DT Journal
 LA English
 AB We will describe the first synthesis of ordered mesoporous silica using a
 fluorinated surfactant template. Nitrogen adsorption, x-ray diffraction and
 TEM results will be presented that show that at room temperature, we form
 particles with well-ordered 2D hexagonal pores using a cationic surfactant
 with a partially fluorinated octyl (C8) tail. The pore diameter determined by
 the inflection in the nitrogen adsorption isotherm is on the order of 2.6 nm
 and the pore size distribution is very narrow. Consistent diams. are found
 with a modified Kelvin equation approach and with nonlocal d. functional
 theory. The same pore size and long-range order are found for a range of
 surfactant:silica ratios.
 IT 156991-88-7, 1H,1H,2H,2H-Perfluorooctylpyridinium chloride
 RL: NUU (Other use, unclassified); USES (Uses)
 (structure-directing agent; fluorinated surfactant templating preparation
 and properties of ordered mesoporous silica particles)
 RN 156991-88-7 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride
 (1:1) (CA INDEX NAME)



● Cl⁻

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:779462 HCAPLUS [Full-text](#)
 DN 139:364807
 TI Bridged tetraquaternary salts from N,N'-polyfluoroalkyl-4,4'-bipyridine
 AU Singh, Rajendra P.; Shreeve, Jean'ne M.
 CS Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
 SO Inorganic Chemistry (2003), 42(23), 7416-7421
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 139:364807
 AB 4,4'-Bipyridine reacted with excess of polyfluoroalkyl bromides or iodides at
 100-110° without solvent to give monoquaternary salts I [R = F3C(CH₂)₂,

F(CH₂)₃, C₆F₁₃(CH₂)₂, C₈F₁₇(CH₂)₂; X = Br, iodo] in >90% yields. The similar reaction in DMF, however, afforded the corresponding diquaternary salts II in comparable yields. Treatment of I with 1,4-dibromobutane in DMF at 100° led to the tetraquaternary salts in about 85% yields. In water or acetone/water as a solvent, salts I (X = Br, iodo) and II (X = Br, iodo) were metathesized with Li(SO₂CF₃)₂ and KSO₃CF₃ to produce monoquaternary ionic liqs. I [X = F₃CSO₂, (F₃CSO₂)₂N] and diquaternary ionic liqs. II [X = F₃CSO₂, (F₃CSO₂)₂N], resp., in 85-92% yields. These comps. were stable to 340°.

IT 618882-03-4P 618882-04-5P 618882-05-6P

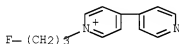
618882-06-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of bridged mono-, di- and tetraquaternary polyfluoroalkyl bipyridinium salts)

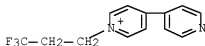
RN 618882-03-4 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3-fluoropropyl)-, bromide (1:1) (CA INDEX NAME)



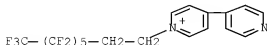
RN 618882-04-5 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)



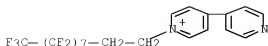
RN 618882-05-6 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, iodide (1:1) (CA INDEX NAME)

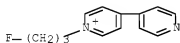


RN 618882-06-7 HCAPLUS

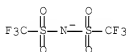
CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (1:1) (CA INDEX NAME)



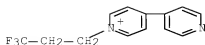
IT 618882-08-9P 618882-10-3P 618882-12-5P
 618882-14-7P 622835-72-7P 622835-73-8P
 622835-74-9P 622835-75-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of bridged mono-, di- and tetraquaternary polyfluoroalkyl
 bipyridinium salts)
 RN 618882-08-9 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3-fluoropropyl)-, salt with 1,1,1-trifluoro-N-
 [(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 618882-07-8
 CMF C13 H14 F N2



CM 2
 CRN 98837-98-0
 CMF C2 F6 N O4 S2



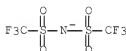
RN 618882-10-3 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3,3,3-trifluoropropyl)-, salt with
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 618882-09-0
 CMF C13 H12 F3 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



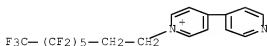
RN 618882-12-5 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 618882-11-4

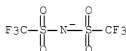
CMF C18 H12 F13 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



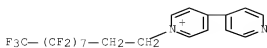
RN 618882-14-7 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10,10-octadecafluorodecyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 618882-13-6

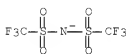
CMF C20 H12 F17 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



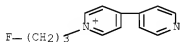
RN 622835-72-7 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3-fluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 618882-07-8

CMF C13 H14 F N2



CM 2

CRN 37181-39-8

CMF C F3 O3 S

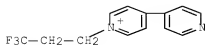


RN 622835-73-8 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3,3-trifluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 618882-09-0
CMF C13 H12 F3 N2

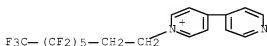


CM 2
CRN 37181-39-8
CMF C F3 O3 S



RN 622835-74-9 HCAPLUS
CN 4,4'-Bipyridinium, 1-(3,3',4,4',5,5',6,6',7,7',8,8',8-tridecafluorooctyl)-, 1:1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1
CRN 618882-11-4
CMF C18 H12 F13 N2



CM 2
CRN 37181-39-8
CMF C F3 O3 S

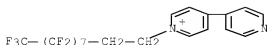


RN 622835-75-0 HCAPLUS
CN 4,4'-Bipyridinium, 1-(3,3',4,4',5,5',6,6',7,7',8,8',8,9,9,10,10,10-heptafluorodecyl)-, 1:1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 618882-13-6

CMF C20 H12 F17 N2



CM 2

CRN 37181-39-8

CMF C F3 O3 S



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2008 ACS ON STN

AN 2003:687443 HCAPLUS [Full-text](#)

DN 140:27783

TI Direct methylation and trifluoroethylation of imidazole and pyridine derivatives

AU Zhang, Jie; Martin, George Robert; DesMarteau, Darryl D.

CS Department of Chemistry, Clemson University, Clemson, SC, 29634-1905, USA

SO Chemical Communications (Cambridge, United Kingdom) (2003),
(18), 2334-2335

CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 140:27783

AB Direct methylation or trifluoroethylation of imidazole and pyridine derivs. using N-methylbis(perfluoroalkyl)sulfonyl]imides or (trifluoroethyl)phenyliodonium bis[(trifluoromethyl)sulfonyl]imide affords high yields of the corresponding salts. This methodol. provides a simple route to a variety of room temperature ionic liqs. (RTILs).

IT 634178-37-3P 634178-38-4P

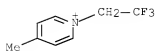
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of room temperature ionic liqs. via direct methylation or trifluoroethylation of imidazole and pyridine derivs. using N-methylbis(perfluoroalkyl)sulfonyl]imides or (trifluoroethyl)phenyliodonium bis[(trifluoromethyl)sulfonyl]imide)

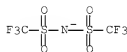
RN 634178-37-3 HCAPLUS

CN Pyridinium, 4-methyl-1-(2,2,2-trifluoroethyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1
 CRN 634178-36-2
 CMF C8 H9 F3 N



CM 2
 CRN 98837-98-0
 CMF C2 F6 N O4 S2

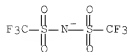


RN 634178-38-4 HCAPLUS
 CN Pyridinium, 1-(2,2,2-trifluoroethyl)-, salt with 1,1,1-trifluoro-N-
 [(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1
 CRN 106241-26-3
 CMF C7 H7 F3 N

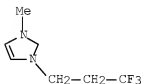


CM 2
 CRN 98837-98-0
 CMF C2 F6 N O4 S2

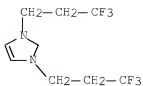


RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:608955 HCAPLUS Full-text
 DN 140:4987
 TI Mono- and disubstituted polyfluoroalkylimidazolium quaternary salts and ionic liquids
 AU Singh, Rajendra P.; Manandhar, Sudha; Shreeve, Jean'ne M.
 CS Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
 SO Synthesis (2003), (10), 1579-1585
 CODEN: SYNTBF; ISSN: 0039-7881
 PB Georg Thieme Verlag
 DT Journal
 LA English
 OS CASREACT 140:4987
 AB Synthesis and characterization of mono and polyfluoroalkyl-substituted imidazolium quaternary salts and ionic liqs., e.g., I, are reported. Reactions of 1-methylimidazole or 1-butylimidazole with an excess of polyfluoroalkyl halides at 80 °C under neat conditions produced the quaternary salts. Similarly, sodium imidazolate with an excess of polyfluoroalkyl halides also gave quaternary salts. Metathesis reactions of quaternary salts with KPF₆, LiN(SO₂CF₃)₂, and KSO₃CF₃, in water, gave ionic liquid products in good yields. All compds. were characterized from ¹H, ¹⁹F, and ¹³C NMR, IR, and MS spectra, and elemental analyses. Densities of the room temperature liqs. fall between 1.44-1.85 g/cm³.
 IT 508220-13-1P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and crystal structure of methyl(trifluoropropyl)imidazolium iodide via N-alkylation of methylimidazole with trifluoropropyl iodide in the preparation of ionic liqs.)
 RN 508220-13-1 HCAPLUS
 CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)



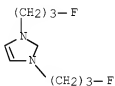
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
 IT 508220-14-2P 508220-15-3P 628328-28-9P
 628328-31-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of polyfluoroalkylimidazolium salts as ionic liqs. via N-alkylation of imidazoles with polyfluoroalkyl halides followed by metathesis with inorg. salts)
 RN 508220-14-2 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 508220-15-3 HCAPLUS

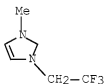
CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, bromide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 628328-28-9 HCAPLUS

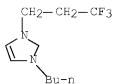
CN 1H-Imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, iodide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 628328-31-4 HCAPLUS

CN 1H-Imidazolium, 1-butyl-3-(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IT 174899-70-8P 174899-87-7P 508220-17-5P

508220-18-6P 508220-19-7P 508220-21-1P

508220-22-2P 508220-24-4P 508220-25-5P

628328-33-6P 628328-41-6P 628328-43-8P

628328-45-0P 628328-51-8P 628328-55-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of polyfluoroalkylimidazolium salts as ionic liqs. via

N-alkylation of imidazoles with polyfluoroalkyl halides followed by

metathesis with inorg. salts)

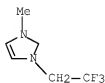
RN 174899-70-8 HCAPLUS

CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S

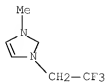


RN 174899-87-7 HCAPLUS

CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (CA INDEX NAME)

CM 1

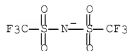
CRN 174899-69-5
CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

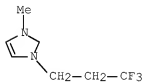
CRN 98837-98-0
CMF C2 F6 N O4 S2



RN 508220-17-5 HCAPLUS
CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, hexafluorophosphate(1-)
(1:1) (CA INDEX NAME)

CM 1

CRN 508220-16-4
CMF C7 H10 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

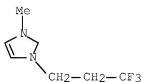
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 508220-18-6 HCAPLUS
 CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, salt with
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
 (9CI) (CA INDEX NAME)

CM 1

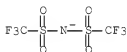
CRN 508220-16-4
 CMF C7 H10 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

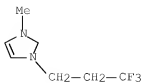
CRN 98837-98-0
 CMF C2 F6 N O4 S2



RN 508220-19-7 HCAPLUS
 CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, 1,1,1-
 trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 508220-16-4
 CMF C7 H10 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S



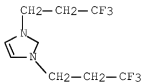
RN 508220-21-1 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, hexafluorophosphate(1-)
(1:1) (CA INDEX NAME)

CM 1

CRN 508220-20-0

CMF C9 H11 F6 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

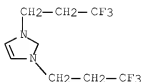
CCI CCS



RN 508220-22-2 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, salt with
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
 (9CI) (CA INDEX NAME)

CM 1

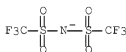
CRN 508220-20-0
 CMF C9 H11 F6 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

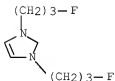
CRN 98837-98-0
 CMF C2 F6 N O4 S2



RN 508220-24-4 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, hexafluorophosphate(1-) (1:1)
 (CA INDEX NAME)

CM 1

CRN 508220-23-3
 CMF C9 H15 F2 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9
 CMF F6 P

CCI CCS



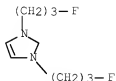
RN 508220-25-5 HCAPLUS

CN 1H-imidazolium, 1,3-bis(3-fluoropropyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 508220-23-3

CMF C9 H15 F2 N2

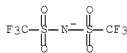


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



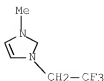
RN 628328-33-6 HCAPLUS

CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2



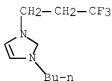
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2
 CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 628328-41-6 HCAPLUS
 CN 1H-Imidazolium, 1-butyl-3-(3,3,3-trifluoropropyl)-, hexafluorophosphate(1-)
) (1:1) (CA INDEX NAME)

CM 1
 CRN 628328-40-5
 CMF C10 H16 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2
 CRN 16919-18-9
 CMF F6 P
 CCI CCS



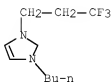
RN 628328-43-8 HCAPLUS

CN 1H-Imidazolium, 1-butyl-3-(3,3,3-trifluoropropyl)-, salt with
1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 628328-40-5

CMF C10 H16 F3 N2

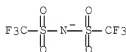


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



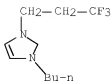
RN 628328-45-0 HCAPLUS

CN 1H-Imidazolium, 1-butyl-3-(3,3,3-trifluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 628328-40-5

CMF C10 H16 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S



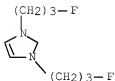
RN 628328-51-8 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 508220-23-3

CMF C9 H15 F2 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

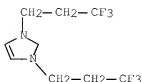
CMF C F3 O3 S



RN 628328-55-2 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1
 CRN 508220-20-0
 CMF C9 H11 F6 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2
 CRN 37181-39-8
 CMF C F3 O3 S

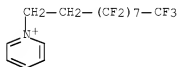


RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:474760 HCAPLUS [Full-text](#)
 DN 139:253587
 TI Electronic properties of LiMo3Se3-nanowires and Mo3Se3-nanowire-networks for nanoscale electronic devices
 AU Heidelberg, A.; Bloess, H.; Schultze, J. W.; Booth, C. J.; Samulski, E. T.; Boland, J. J.
 CS Institut fuer Physikalische Chemie und Elektrochemie, Heinrich-Heine-Universitaet Duesseldorf, Duesseldorf, D-40225, Germany
 SO Zeitschrift fuer Physikalische Chemie (Muenchen, Germany) (2003), 217(5), 573-585
 CODEN: ZPCFAX; ISSN: 0942-9352
 PB Oldenbourg Wissenschaftsverlag GmbH
 DT Journal
 LA English
 AB Nanowires and nanotubes have attracted much interest as potential building blocks for nanotechnol. This interest can be traced to the novel structural and electronic properties of these nanomaterials. Here we describe a study that measures the electronic properties of bare LiMo3Se3-nanowires, together with wires that have been stabilized by alkylammonium- and pyridinium-ligands. The bare LiMo3Se3-nanowires consist of individual wire bundles whereas the stabilized wires form networks with an inter-wire spacing determined by the ligand. The bare wires are shown to be metallic but susceptible to elec. degradation (oxidation) in air. However, conductivity measurements at different temperature and oxidation times show that conduction in the wire networks occurs via a percolation mechanism and is activated. Moreover, the

corrosion rate of the Mo₃Se₃-nanowires is dramatically reduced when the wires are stabilized, demonstrating that the ligands form a protective semi-insulating coating.

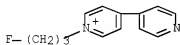
IT 1S6991-89-8P, N-(1-H,1-H,1-H,2-H-Perfluorodecyl)pyridinium chloride
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (electronic properties of LiMo₃Se₃-nanowires and Mo₃Se₃-nanowire-networks for nanoscale electronic devices)
 RN 156991-89-8 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



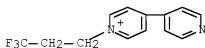
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2008 ACS ON STN
 AN 2003:415859 HCAPLUS Full-text
 DN 139:350611
 TI Syntheses of the first N-mono- and N, N'-dipolyfluoroalkyl-4,4'-bipyridinium compounds
 AU Singh, Rajendra P.; Shreeve, Jean'ne M.
 CS Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
 SO Chemical Communications (Cambridge, United Kingdom) (2003), (12), 1366-1367
 CODEN: CHCOFS; ISSN: 1359-7345
 PB Royal Society of Chemistry
 DT Journal
 LA English
 OS CASREACT 139:350611
 AB Reactions of 4,4'-bipyridine with excess of polyfluoroalkyl iodides at 100-110 °C, under neat conditions, led to the formation of monoquaternary salts in >90% yields. These salts were metathesized with LiN(SO₂CF₃)₂ either in water or water/acetone mixts. to form ionic liqs. in >88% yields. When 4,4'-bipyridine was reacted with 2.5 equiv of polyfluoroalkyl iodides in DMF at 110 °C, diquaternary salts were formed in >85% yields. Alternatively, diquaternary salts were also synthesized by heating a mixture of monoquaternary salts and polyfluoroalkyl iodides (1.25 equiv) in DMF. The metathesis reaction of diquaternary salts with LiN(SO₂CF₃)₂ produced dicationic ionic liqs. in >86% yield. Compds. thus prepared included 1-(3-fluoropropyl)-4,4'-bipyridinium 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide, 1-(3,3,3-trifluoropropyl)-4,4'-bipyridinium 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-4,4'-bipyridinium 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide, 1,1'-bis(3-fluoropropyl)-4,4'-bipyridinium bis[1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide], 1,1'-

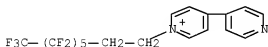
bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-4,4'-bipyridinium bis[1,1,1-trifluoro-N-(trifluoromethyl)sulfonyl]methanesulfonamide].
 IT 618882-03-4P, 1-(3-Fluoropropyl)-4,4'-Bipyridinium bromide
 618882-04-5P, 1-(3,3,3-Trifluoropropyl)-4,4'-Bipyridinium iodide
 618882-05-6P 618882-06-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of (fluoroalkyl)bipyridinium compds. and bis(fluoroalkyl)bipyridinium compds.)
 RN 618882-03-4 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3-fluoropropyl)-, bromide (1:1) (CA INDEX NAME)



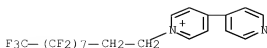
RN 618882-04-5 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)



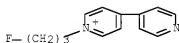
RN 618882-05-6 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, iodide (1:1) (CA INDEX NAME)



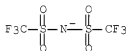
RN 618882-06-7 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (1:1) (CA INDEX NAME)



IT 618882-08-9P, 1-(3-Fluoropropyl)-4,4'-bipyridinium
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide
 618882-10-3P, 1-(3,3,3-Trifluoropropyl)-4,4'-bipyridinium
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide
 618882-12-5P, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl)-
 4,4'-bipyridinium 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulf
 onamide 618882-14-7P, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-
 Heptadecafluorodecyl)-4,4'-bipyridinium 1,1,1-trifluoro-N-
 [(trifluoromethyl)sulfonyl]methanesulfonamide
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of (fluoroalkyl)bipyridinium compds. and
 bis(fluoroalkyl)bipyridinium compds.)
 RN 618882-08-9 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3-fluoropropyl)-, salt with 1,1,1-trifluoro-N-
 [(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 618882-07-8
 CMF C13 H14 F N2

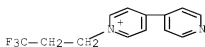


CM 2
 CRN 98837-98-0
 CMF C2 F6 N O4 S2



RN 618882-10-3 HCAPLUS
 CN 4,4'-Bipyridinium, 1-(3,3,3-trifluoropropyl)-, salt with
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 618882-09-0

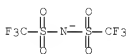
CMF C13 H12 F3 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



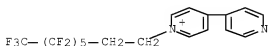
RN 618882-12-5 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3',4,4',5,5',6,6',7,7',8,8',8-tridecafluorooctyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 618882-11-4

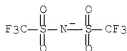
CMF C18 H12 F13 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



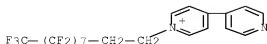
RN 618882-14-7 HCAPLUS

CN 4,4'-Bipyridinium, 1-(3,3',4,4',5,5',6,6',7,7',8,8',9,9,10,10,10,10-heptafluorodecyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 618882-13-6

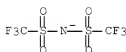
CMF C20 H12 F17 N2



CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2008 ACS ON STN

AN 2003:385550 HCAPLUS [Full-text](#)

DN 139:106922

TI Composition of Mixed Hydrocarbon and Fluorocarbon Surfactant Adsorbed Layers at Mica-Solution Interfaces

AU Davey, Tim W.; Warr, Gregory G.; Asakawa, Tsuyoshi

CS School of Chemistry, University of Sydney, New South Wales, 2006, Australia

SO Langmuir (2003), 19(13), 5266-5272

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

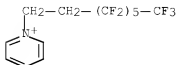
AB The compns. of the adsorbed aggregates at the mica-solution interface were directly determined for mixts. of pyridinium chloride hydrocarbon and fluorocarbon surfactants by solution depletion measurements, including direct determination of the adsorbed layer composition for partially miscible surfactants. The measured adsorbed aggregate compns. are compared with predictions for bulk micelles using the group contribution method and regular solution theory. For fully miscible surfactants, there is good agreement between the models and exptl. results. The group contribution method successfully predicts the existence of a miscibility gap for some mixts., but adsorption expts. reveal some unusual features; the adsorbed layer consists of only one of the two coexisting micelle compns., and its composition differs from that predicted. This effect is attributed to the substrate.

IT 156991-88-7, HFOPC 156991-89-8

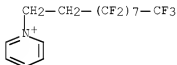
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)

(self-assembly of hydrocarbon and fluorocarbon surfactants and mixts. at mica-solution interface)

RN 156991-88-7 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride
 (1:1) (CA INDEX NAME)



RN 156991-89-8 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

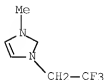
=> => d l34 bib ab hitstr tot

L34 ANSWER 1 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:160614 HCAPLUS [Full-text](#)
 DN 138:210892
 TI Ionic liquid composite with Lewis acid catalytic activity
 IN Takada, Naokado; Komata, Takeo; Matsunaga, Kei
 PA Central Glass Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003062467	A	20030304	JP 2001-255023	20010824 <--
	JP 4039828	B2	20080130		
PRAI	JP 2001-255023		20010824	<--	

AB The invention refers to an ionic liquid comprising a low m.p. ionic liquid 1-ethyl-3-methylimidazolium trifluoromethane sulfonate and a high m.p. ionic liquid, 1-(2,2,2-trifluoroethyl)-3-methylimidazolium trifluoromethane sulfonate, for a low-melting novel ionic liquid composite with Lewis acid catalytic activity.

IT 174899-70-8
 RL: CAT (Catalyst use); USES (Uses)
 (ionic liquid composite with Lewis acid catalytic activity)
 RN 174899-70-8 HCAPLUS
 CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)
 CM 1
 CRN 174899-69-5
 CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2
 CRN 37181-39-8
 CMF C F3 O3 S



L34 ANSWER 2 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:924932 HCAPLUS [Full-text](#)
 DN 138:304213
 TI New dense fluoroalkyl-substituted imidazolium ionic liquids
 AU Singh, Rajendra P.; Manandhar, Sudha; Shreeve, Jean'ne M.
 CS Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
 SO Tetrahedron Letters (2002), 43(52), 9497-9499
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 OS CASREACT 138:304213
 AB New mono and polyfluoroalkyl-substituted imidazolium ionic liqs. have been synthesized and characterized. The neat reaction of 1-methylimidazole with 1,1,1-trifluoro-3-iodopropane at 80°C formed the quaternary salt, 1-methyl-3-trifluoropropylimidazolium iodide (I), in 90% yield. Similarly, sodium imidazole gave good yields of the quaternary salts, 1,3-bis(trifluoropropyl)imidazolium iodide (II) with an excess of 1,1,1-trifluoro-3-iodopropane, and 1,3-bis(monofluoropropyl)imidazolium bromide (III) with an excess of 1-fluoro-3-bromopropane. In water as solvent, metathesis reactions of I with KPF6, LiN(SO2CF3)2, and KO3SCF3, and of II and III with KPF6 and LiN(SO2CF3)2 led to imidazolium salts in good isolated yields. Some of the

di(polyfluoroalkyl)imidazolium salts are liqs. with densities in excess of 1.8 g/cm³.

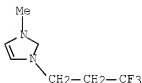
IT 508220-13-1P 508220-14-2P 508220-15-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of fluoroalkyl-substituted imidazolium ionic liqs.)

RN 508220-13-1 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)

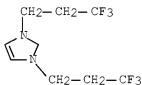


● I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 508220-14-2 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, iodide (1:1) (CA INDEX NAME)

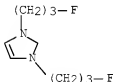


● I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 508220-15-3 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, bromide (1:1) (CA INDEX NAME)



● Br⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IT 508220-17-5P 508220-18-6P 508220-19-7P

508220-21-1P 508220-22-2P 508220-24-4P

508220-25-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of fluoroalkyl-substituted imidazolium ionic liqs.)

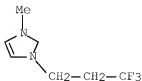
RN 508220-17-5 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, hexafluorophosphate(1-)
(1:1) (CA INDEX NAME)

CM 1

CRN 508220-16-4

CMF C7 H10 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



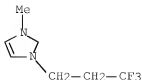
RN 508220-18-6 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, salt with
1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 508220-16-4

CMF C7 H10 F3 N2

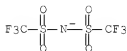


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



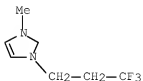
RN 508220-19-7 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(3,3,3-trifluoropropyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 508220-16-4

CMF C7 H10 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S



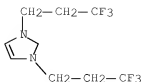
RN 508220-21-1 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, hexafluorophosphate(1-)
(1:1) (CA INDEX NAME)

CM 1

CRN 508220-20-0

CMF C9 H11 F6 N2



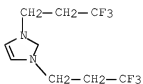
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2
 CRN 16919-18-9
 CMF F6 P
 CCI CCS



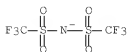
RN 508220-22-2 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3,3,3-trifluoropropyl)-, salt with
 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
 (9CI) (CA INDEX NAME)

CM 1
 CRN 508220-20-0
 CMF C9 H11 F6 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

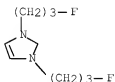
CM 2
 CRN 98837-98-0
 CMF C2 F6 N O4 S2



RN 508220-24-4 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, hexafluorophosphate(1-) (1:1)
 (CA INDEX NAME)

CM 1

CRN 508220-23-3
 CMF C9 H15 F2 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

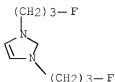
CRN 16919-18-9
 CMF F6 P
 CCI CCS



RN 508220-25-5 HCAPLUS
 CN 1H-Imidazolium, 1,3-bis(3-fluoropropyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

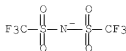
CRN 508220-23-3
 CMF C9 H15 F2 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0
CMF C2 F6 N O4 S2



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 3 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:824662 HCAPLUS [Full-text](#)
DN 138:41024

TI Demixing of Fluorinated and Hydrogenated Surfactants into Distinct
Aggregates and into Distinct Regions within Aggregates. A Combined NMR,
Fluorescence Quenching, and Cryo-TEM Study
AU Kadi, M.; Hansson, P.; Almgren, M.; Furo, I.
CS Department of Physical Chemistry, Uppsala University, Uppsala, SE-751 21,
Swed.

SO Langmuir (2002), 18(24), 9243-9249
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society

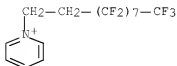
DT Journal
LA English

AB The formation of two different kinds of micelles in the cationic surfactant
mixture of HfDePC and CTAC as well as the increased mixing with increasing
temperature has been investigated. A critical temperature of demixing was
appreciated to 42 °C. NMR self-diffusion measurements reveal to us a
coexistence of larger fluorocarbon-rich and smaller hydrocarbon-rich micelles,
which is also observed using cryo-TEM. We also suggest, from 19F line width
data, that the two surfactant species constituting the demixed micelles are
"microphase-separated". The existence of such aggregates has earlier only
been speculated upon. From time-resolved fluorescence quenching measurements,
we have estimated the fraction of fluorocarbon surfactant in the hydrocarbon-
rich micelles to larger than 0.1.

IT 156991-89-8
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(micelle formation and demixing of cationic surfactant
tetrahydroperfluorodecanylpipridinium chloride-cetyltrimethylammonium
chloride mixture)

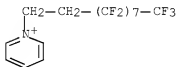
RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-
, chloride (1:1) (CA INDEX NAME)



RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

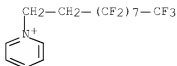
L34 ANSWER 4 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:357927 HCAPLUS [Full-text](#)
DN 137:80650
TI Molecular Mechanism of Lateral Diffusion of Fluorosurfactants. A 19F NMR Study
AU Kadi, M.; Dvinskikh, S. V.; Furo, I.; Almgren, M.
CS Department of Physical Chemistry, Uppsala University, Uppsala, SE-75121, Swed.
SO Langmuir (2002), 18(12), 5015-5018
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The measurement of the lateral diffusion (Dlat) of the cationic fluorocarbon surfactant 1,1,2,2-tetrahydroperfluorodecylpyridinium chloride (HFDePC) in an intermediate lyotropic liquid crystalline phase by 19F NMR. The phase diagram of the aqueous solution of HFDePC presents, at around 84 weight % surfactant concentration, a defective lamellar phase with water-filled defects forming, similarly to other fluorosurfactants, a mesh with hexagonal symmetry. The arrangement of the defects in adjacent bilayers lends trigonal symmetry to the phase. In this structure, which is the subject of our study, the surfactant domain is topol. continuous and the available X-ray diffraction patterns point to an average structure that is temperature independent in the range explored by us. Hence, the obtained temperature dependence of Dlat should be characteristic of the intermol. interactions and dynamics and not of the large-scale structure of the defected bilayers.
IT 156991-89-8, 1H,1H,2H,2H-Perfluorodecylpyridinium chloride
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(cationic fluorosurfactant, lyotropic liquid crystal; mol. mechanism of lateral diffusion of cationic lyotropic liquid crystal fluorosurfactants by 19F NMR)
RN 156991-89-8 HCAPLUS
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

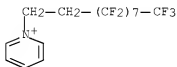
RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 5 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:697810 HCAPLUS [Full-text](#)
DN 136:75022



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

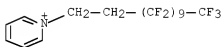
L34 ANSWER 6 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:530948 HCAPLUS Full-text
DN 135:247659
TI Self-Assembly of Hydrocarbon and Fluorocarbon Surfactants and Their Mixtures at the Mica-Solution Interface
AU Davey, Tim W.; Warr, Gregory G.; Almgren, Mats; Asakawa, Tsuyoshi
CS School of Chemistry, University of Sydney, 2006, Australia
SO Langmuir (2001), 17(17), 5283-5287
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The adsorbed layer structure of tetradecylpyridinium, hexadecylpyridinium, heptadecafluorodecylpyridinium, and tetradecyltriethylammonium chloride and their mixts. on mica was determined by AFM imaging. In addition, the composition of the mixed adsorbed layers was measured, showing a significant surface enrichment of the pyridinium surfactants, particularly the partially fluorinated species. Shape transitions in the adsorbed layer are correlated with surface and bulk compns. and explained by consideration of the adsorption mechanism.
IT 156991-89-8
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(self-assembly of hydrocarbon and fluorocarbon surfactants and mixts. at mica-solution interface)
RN 156991-89-8 HCAPLUS
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

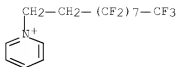
L34 ANSWER 7 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

- AN 2001:498047 HCAPLUS Full-text
 DN 135:294303
 TI Aqueous Solution Properties of Pyridinium-Type Perfluorinated Surfactants and Simulation of Mixture CMC
 AU Asakawa, Tsuyoshi; Ishikawa, Kenji; Miyagishi, Shigeyoshi
 CS Department of Chemistry and Chemical Engineering, Faculty of Engineering, Kanazawa University, Kanazawa, 920-8667, Japan
 SO Journal of Colloid and Interface Science (2001), 240(1), 365-367
 CODEN: JCISA5; ISSN: 0021-9797
 PB Academic Press
 DT Journal
 LA English
 AB The critical micelle concns. (CMCs) of 1,1,2,2-tetrahydroperfluoroalkylpyridinium chloride were determined by measurements of surface tension and elec. conductivity, etc. The CMCs of perfluorinated surfactants were only .apprx.0.02 times that of hydrocarbon one with the same C number Aqueous solns. of fluorocarbon surfactants gave low surface tensions in comparison with those of hydrocarbon surfactants. The area per surfactant mol. at the air-H₂O interface decreased with increasing length of the fluorocarbon chain. Electromotive force measurements were made with chloride-responsive electrodes on surfactants solns. The micelle ionization degrees decreased with increasing length of the alkyl chain. The group contribution method simulated the mixture CMCs of binary surfactants with various alkyl chain lengths. The group contribution method proved to be very useful to predict not only the mixture CMCs but also the demixing regions of binary mixts. having great differences in CMC. (c) 2001 Academic Press.
- IT 248912-48-3, HFDPC
 RL: PRP (Properties)
 (HFDPC; aqueous solution properties of pyridinium-type perfluorinated surfactants and simulation of CMC of mixture of fluorocarbon and hydrocarbon surfactants)
- RN 248912-48-3 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)-, chloride (1:1) (CA INDEX NAME)

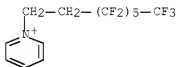


● Cl⁻

- IT 156991-89-8, HFDPC
 RL: PRP (Properties)
 (HFDPC; aqueous solution properties of pyridinium-type perfluorinated surfactants and simulation of CMC of mixture of fluorocarbon and hydrocarbon surfactants)
- RN 156991-89-8 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

IT 156991-88-7, HFOPC
 RL: PRP (Properties)
 (HFOPC; aqueous solution properties of pyridinium-type perfluorinated surfactants and simulation of CMC of mixture of fluorocarbon and hydrocarbon surfactants)
 RN 156991-88-7 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

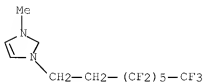
L34 ANSWER 8 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:730086 HCAPLUS [Full-text](#)
 DN 134:58225
 TI New fluoroalkyl-containing imidazolium compounds as surfactants in conventional room-temperature ionic liquids
 AU Merrigan, Travis L.; Bates, Eleanor D.; Dorman, Scott C.; Davis, James H., Jr.
 CS Dep. Chem., University of South Alabama, Mobile, AL, USA
 SO Chemical Communications (Cambridge) (2000), (20), 2051-2052
 CODEN: CHCOFS; ISSN: 1359-7345
 PB Royal Society of Chemistry
 DT Journal
 LA English
 AB Ionic liqs. formulated from imidazole cations with appended fluoroalkyl-containing tails function as surfactants when added to conventional ionic liqs., facilitating the emulsification of fluoroalkanes with IL phases.
 IT 313475-50-2 313475-52-4 313475-54-6
 313475-56-8
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (cationic surfactant based on fluoroalkyl imidazolium phosphorus hexafluoride and its emulsion in ionic liquid)
 RN 313475-50-2 HCAPLUS
 CN 1H-Imidazolium, 1-methyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-

, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 313475-49-9

CMF C12 H10 F13 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



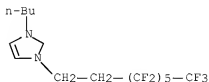
RN 313475-52-4 HCAPLUS

CN 1H-imidazolium, 1-butyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 313475-51-3

CMF C15 H16 F13 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



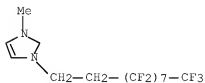
RN 313475-54-6 HCAPLUS

CN 1H-imidazolium, 3-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-1-methyl-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 313475-53-5

CMF C14 H10 F17 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 313475-56-8 HCAPLUS

CN 1H-imidazolium, 1-butyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, hexafluorophosphate(1-) (1:1) (CA INDEX NAME)

CM 1

CRN 313475-55-7

CMF C17 H16 F17 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 9 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:200739 HCAPLUS [Full-text](#)

DN 133:4790

TI Fluoroalkylated N-heterocyclic carbene complexes of palladium

AU Xu, L.; Chen, W.; Bickley, J. F.; Steiner, A.; Xiao, J.

CS Department of Chemistry, Leverhulme Centre for Innovative Catalysis,
University of Liverpool, Liverpool, L69 7ZD, UK

SO Journal of Organometallic Chemistry (2000), 598(2), 409-416

CODEN: JORCAI; ISSN: 0022-328X

PB Elsevier Science S.A.

DT Journal

LA English

AB Fluoroalkylated N-heterocyclic carbene complexes of Pd were synthesized from imidazolium salts and Pd(OAc)₂. The analogous carbene complexes bearing long alkyl chains also were prepared. The formation of these carbene complexes proceeds via an intermediate binuclear species, which was isolated. Complexes such as these may find applications in catalysis in supercrit. CO₂ (scCO₂).

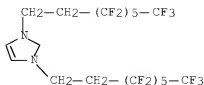
IT 197712-82-6P 270908-52-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and structure of fluoroalkylated N-heterocyclic carbene
complexes of palladium)

RN 197712-82-6 HCAPLUS

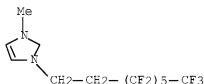
CN 1H-Imidazolium, 1,3-bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-,
iodide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 270908-52-6 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-
, iodide (1:1) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 10 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:718288 HCAPLUS [Full-text](#)

DN 132:84091

TI Phase Behavior and Phase Structure of a Cationic Fluorosurfactant in Water
AU Wang, Ke; Oraedd, Greger; Almgren, Mats; Asakawa, Tsuyoshi; Bergensthl,
Bjoern

CS Department of Physical Chemistry, Uppsala University, Uppsala, S-751 21,
Swed.

SO Langmuir (2000), 16(3), 1042-1049

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

AB The phase behavior of the cationic fluorocarbon surfactant 1,1,2,2-tetrahydroperfluorodecylpyridinium chloride in water has been studied using small-angle X-ray and 2H NMR spectroscopy as the main techniques. The following phase sequence was found: micellar (L1), hexagonal (H1), centered rectangular (R; spacegroup c2mm) and centered trigonal (T, spacegroup R.hivin.3m) with increasing surfactant concentration. At higher concns. evidence for random mesh phase and a lamellar phase was found, at high temps. a bicontinuous cubic phase was found. Compared to a cationic hydrocarbon surfactant of similar hydrophobicity, the occurrence of the intermediate phases is more extensive in the phase diagram, and the fluorocarbon surfactant prefers to form intermediate phases instead of a cubic phase. The surface curvature of the aggregates changes from highly curved cylindrical structures of the hexagonal phase to the planar bilayer structure of the lamellar phase.

over a sequence of geometries that allow the average of the mean curvature to change gradually as water content is decreased.

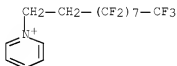
IT 156991-89-8

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(phase behavior and phase structure of a cationic fluorosurfactant in water)

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 11 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:636905 HCAPLUS Full-text

DN 131:327904

TI Aggregation behavior of cationic fluorosurfactants in water and salt solutions. A cryoTEM survey

AU Wang, Ke; Karlsson, Goeran; Almgren, Mats; Asakawa, Tsuyoshi

CS Department of Physical Chemistry, Uppsala University, Uppsala, S-751 21, Swed.

SO Journal of Physical Chemistry B (1999), 103(43), 9237-9246

CODEN: JPCBPK; ISSN: 1089-5647

PB American Chemical Society

DT Journal

LA English

AB The aggregation behavior of the cationic fluorocarbon surfactants 1,1,2,2-tetrahydroperfluoroalkylpyridinium chloride and 2-hydroxy-1,1,2,3,3-pentahydroperfluoroalkyldiethylammonium chloride in aqueous solution were studied using cryo-transmission electron microscopy as the main technique. The effects on aggregate structure of factors such as surfactant and salt concentration, counterion type, and alkyl chain length were investigated. Similar to hydrocarbon surfactants the fluorocarbon surfactants self-assemble into various aggregates such as micelles, threadlike micelles, vesicles, and other lamellar aggregates. A distinctive property of the fluorocarbon surfactants is their tendency to form structures with little curvature, such as cylindrical micelles, and bilayer structures. Even a very small reduction of the repulsion between the headgroups is sufficient to accomplish a sphere to rod transition, so that a solution of globular micelles in water is turned into a highly viscous, sometimes viscoelastic solution on the addition of low concns. of a simple salt. The differences between the fluorocarbon and hydrocarbon surfactants are discussed.

IT 156991-88-7 156991-89-8 248912-48-3

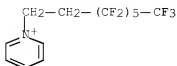
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(aggregation behavior of cationic fluorosurfactants in water and salt

solns. studied by cryo-TEM)

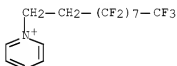
RN 156991-88-7 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride (1:1) (CA INDEX NAME)



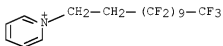
RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



RN 248912-48-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)-, chloride (1:1) (CA INDEX NAME)



RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 12 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:113665 HCAPLUS [Full-text](#)

DN 130:168232

TI Preparation of O-(perfluoroalkyl)dibenzofuranium salts as
perfluoroalkylating agents and their intermediates such as
(perfluoroalkoxy)biphenyldiazonium salts

IN Umenoto, Teruo; Adachi, Kenji; Ishihara, Sumi

PA Daikin Industries Ltd., Japan

SO PCT Int. Appl., 49 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CMT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9906389	A1	19990211	WO 1998-JP3416	19980730 <--
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1013651	A1	20000628	EP 1998-935301	19980730 <--
	EP 1013651	B1	20070530		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	AT 363477	T	20070615	AT 1998-935301	19980730 <--
	US 6239289	B1	20010529	US 2000-463706	20000215 <--
PRAI	JP 1997-207901	A	19970801	<--	
	WO 1998-JP3416	W	19980730	<--	

OS CASREACT 130:168232; MARPAT 130:168232

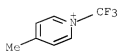
AB O-(perfluoroalkyl)dibenzofuranium salt derivs. represented by general formula (I; Rf is perfluoroalkyl being 1 to 10 carbon atoms; and X- is a conjugate based of a Bronsted acid) are prepared by cyclization of (perfluoroalkoxy)biphenyldiazonium salts (II; Rf and X- are defined as above) and are used as perfluoroalkylating agents for perfluoroalkylation of nucleophiles containing O or N, e.g. amines and alcs. When the O-(perfluoroalkyl)dibenzofuranium salt derivs. are used as perfluoroalkylating agents, they permit high-yield perfluoroalkylation, and are applicable to a wide range of compds. and inhibited in self-decomposition as to be relatively stable. The presence of tert-Bu at 5-position improves the stability of I and thereby usefulness of I as perfluoroalkylating agents. Thus, a solution of 7.17 g 2-amino-5-tert-butyl- 2'-(trifluoromethoxy)biphenyl in 46 mL Et2O was cooled to -78° with stirring, followed by adding 6.47 g nitrosonium hexafluoroantimonate (ON+SbF6-), and the resulting mixture was warmed to 10° over 3 h in an warm bath, while adding 10 mL Et2O when temperature reached to 5°, to give 58% III (Rf = CF3, X- = SbF6-) (III). A CCl2D2 solution of 6.5 mg III in a Pyrex NMR tube was cooled to -106° and irradiated by a high pressure Hg lamp (400 W and 253.7 nm) for 45 min to give I (Rf = CF3, X- = SbF6-) (IV) 87, 5-tert-butyl-2-fluoro-2'-(trifluoromethoxy)biphenyl 8, and 5-tert-butyl-2-chloro-2'-(trifluoromethoxy)biphenyl 3% according to 19F- and 1H-NMR anal. at -80°. When the temperature was gradually raised to -30°, IV completely decomposed to CF4 and 2-tert-butylbenzofuran. To the cold (-99° to -90°) reaction mixture similarly prepared were added variety of alcs. and amines. When phenecyl alc. was added at -90°, the resulting mixture was warmed to -10° over 3 h to give 80% phenecyl trifluoromethyl ether. Although in general, diazonium salts are explosive in nature, III has .apprx.27° higher decomposition temperature (84.7-85.8°) compared to that of the 4-tert-Bu regioisomer (m.p. 58-60°) and can be handled at room temperature, and safely stored and transported.

IT 220350-57-2P 220350-65-2P, 1-(Trifluoromethyl)pyridinium hexafluoroantimonate
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of O-(perfluoroalkyl)dibenzofuranium salts as perfluoroalkylating agents and their intermediates such as (perfluoroalkoxy)biphenyldiazonium salts)

RN 220350-57-2 HCAPLUS

CN Pyridinium, 4-methyl-1-(trifluoromethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CRN 220350-56-1
 CMF C7 H7 F3 N



CM 2
 CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RN 220350-65-2 HCAPLUS
 CN Pyridinium, 1-(trifluoromethyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI)
 (CA INDEX NAME)

CM 1
 CRN 220350-64-1
 CMF C6 H5 F3 N

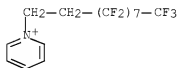


CM 2
 CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 13 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:480373 HCAPLUS [Full-text](#)
DN 129:194037
OREF 129:39321a,39324a
TI Preparation of microphase separated unimolecular micelle and luminescence control
AU Asakawa, Tsuyoshi
CS Department Chemistry Chemical Engineering, Faculty Engineering, Kanazawa University, Japan
SO Asahi Garasu Zaidan Josei Kenkyu Seika Hokoku [Electronic Publication] (1997) No pp. given
CODEN: AGSHEN; ISSN: 0919-9179
URL: <http://www.af-info.or.jp/JPN/subsidy/report2/1998/body/97A-C02-P024.TXT>
PB Asahi Garasu Zaidan
DT Journal; (online computer file)
LA Japanese
AB The purposes of studies are the prepsns. of self-organized mols. and the luminescence control using microphase separation phenomena. By introducing fluorocarbon chains which have various unique properties, the fluorescence intensity of pyrene can be controlled by local segregation effect along with mol. association Two different microdomains were created by amphiphilic polymers modified with fluorocarbon and hydrocarbon chains. The amphiphilic polymers can solubilize H2O-insol. fluorescence probes by the formation of hydrophobic domains with intramol. interactions. The so-called unimol. micelle can organize the microdomains with a dilute aqueous solution The generation and control of various chemical reactions can be tested in the microphase separated micelle systems.
IT 156991-89-8
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (quencher; in preparation of microphase separated unimol. micelle and pyrene luminescence control)
RN 156991-89-8 HCAPLUS
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

L34 ANSWER 14 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:804040 HCAPLUS [Full-text](#)
DN 128:101789
OREF 128:19937a,19940a

TI Hydrophobic, Highly Conductive Ambient-Temperature Molten Salts. [Erratum to document cited in CA124:260267]

AU Bonhote, Pierre; Dias, Ana-Paula; Armand, Michel; Papageorgiou, Nicholas; Kalyanasundaram, Kuppuswamy; Graetzel, Michael

CS Institut de Chimie Physique, Ecole Polytechnique Federale de Lausanne, Lausanne, CH-1015, Switz.

SO Inorganic Chemistry (1998), 37(1), 166
CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

DT Journal

LA English

AB Page 1168. The name of the third author (Michel Armand) was omitted from the byline of the original paper. The corrected byline is as printed here. All future citations of the publication should take this correction into account, which will also be attached to all reprints sent out from our laboratory

IT 174899-70-8P 174899-87-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of hydrophobic, highly conductive ambient-temperature molten imidazolium salts (Erratum))

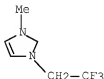
RN 174899-70-8 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S

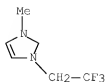


RN 174899-87-7 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (CA INDEX NAME)

CM 1

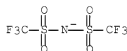
CRN 174899-69-5
CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0
CMF C2 F6 N O4 S2



L34 ANSWER 15 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:754935 HCAPLUS [Full-text](#)

DN 128:66793

OREF 128:12975a,12978a

TI Distribution of fluorocarbon quencher among micelles via pyrene fluorescence probe method

AU Asakawa, T.; Saruta, A.; Miyagishi, S.

CS Dep. Chem. Chem. Eng., Fac. Eng., Kanazawa Univ., Kanazawa, 920, Japan

SO Colloid and Polymer Science (1997), 275(10), 958-963

CODEN: CPMSB6; ISSN: 0303-402X

PB Dr. Dietrich Steinkopff Verlag GmbH & Co. KG

DT Journal

LA English

AB Fluorescence-quenching of pyrene in micellar system was investigated using 1,1,2,2-tetrahydroheptadecafluorodecylpyridiniumchloride (HFDePC). The new fluorocarbon quencher has a similar quenching ability as hexadecylpyridinium chloride towards pyrene in hydrocarbon micelles if only a quencher mol. is solubilized in a micelle. The fluorocarbon quencher randomly distributed among micelles if the average occupancy number of probes per micelle was small enough. The fluorescence behavior of pyrene was examined for hexadecyltrimethylammonium chloride and HFDePC mixts. The variation of fluorescence intensity gave 2nd CMC, reflecting the micellar immiscibility of fluorocarbon and hydrocarbon surfactants. The 2nd CMC can be simulated by material balances of both surfactants supposing the coexistence of 2 kinds of mixed micelles. The fluorescence-quenching behavior suggested the enhanced micellar immiscibility probably due to nonrandom distribution of fluorocarbon quenchers among micelles.

IT 156991-89-8, Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride

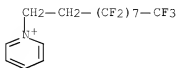
RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(fluorescence quencher; solubilization behavior of pyrene and fluorocarbon quencher in micellar solution studied by fluorescence quenching)

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

L34 ANSWER 16 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:640647 HCAPLUS Full-text

DN 127:318962

OREF 127:62513a,62516a

TI Process for generating heterocyclic carbenes

IN Herrmann, Wolfgang A.; Kocher, Christian; Goossen, Lukas

PA Hoechst A.-G., Germany; Herrmann, Wolfgang A.; Kocher, Christian; Goossen, Lukas

SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9734875	A1	19970925	WO 1997-EP1296	19970314 <--
	W: AU, BR, CA, CN, JP, KR, MX, PL, RO, US, VN				
	RM: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19610908	A1	19970925	DE 1996-19610908	19960320 <--
	TW 412530	B	20001121	TW 1997-86102643	19970305 <--
	ZA 9702198	A	19970917	ZA 1997-2198	19970313 <--
	CA 2250086	A1	19970925	CA 1997-2250086	19970314 <--
	AU 9722878	A	19971010	AU 1997-22878	19970314 <--
	AU 710591	B2	19990923		
	EP 888308	A1	19990107	EP 1997-915369	19970314 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	CN 1216536	A	19990512	CN 1997-193968	19970314 <--
	BR 9708234	A	19990803	BR 1997-8234	19970314 <--
	JP 2000507239	T	20000613	JP 1997-533129	19970314 <--
	US 6025496	A	20000215	US 1998-155065	19981102 <--
PRAI	DE 1996-19610908	A	19960320	<--	
	WO 1997-EP1296	W	19970314	<--	
OS	CASREACT 127:318962; MARPAT 127:318962				
AB	Title carbenes [I; RR = electron pair; Z = N or CR ₃ ; R ₁ -R ₄ = (ar)alkyl, aryl, etc.] were generated by deprotonation of I.A (A = halide, borate, phosphate, etc.; 1 of R = H and the other = pos. charge) in, e.g., liquid NH ₃ . Thus, 1-methylimidazole was N-alkylated by MeI and the product treated with NaH in THF/NH ₃ (liquid) to give, after NH ₃ evaporation and filtration, a THF solution				

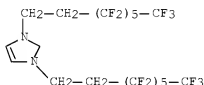
of the carbene which was used to prepare chloro(η -4,1,5-cyclooctadiene) (1,3-dimethylimidazolin-2-ylidene)rhodium(I).

IT 197712-82-6P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (process for generating heterocyclic carbenes)

RN 197712-82-6 HCAPLUS

CN 1H-Imidazolium, 1,3-bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, iodide (1:1) (CA INDEX NAME)



● I⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L34 ANSWER 17 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:492747 HCAPLUS [Full-text](#)

DN 127:192177

OREF 127:37255a,37258a

TI Pyrene fluorescence-quenching by 1,1,2,2-tetrahydroheptadecafluorodecyl pyridinium chloride in mixed fluorocarbon-hydrocarbon micelles

AU Asakawa, Tsuyoshi; Okamoto, Takao; Miyagishi, Shigeyoshi

CS Department Chemistry Chemical Engineering, Faculty Engineering, Kanazawa University, Kanazawa, 920, Japan

SO Nihon Yukagakkaishi (1997), 46(7), 777-783

CODEN: NIYUFC; ISSN: 1341-8327

PB Nihon Yukagaku Gakkai

DT Journal

LA English

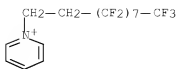
AB The fluorescence quenching of pyrene using 1,1,2,2-tetrahydroheptadecafluorodecylpyridinium chloride (HFDePC) was studied in mixed micelles comprised of anionic fluorocarbon and hydrocarbon surfactants. HFDePC quenched pyrene emission in hydrocarbon pure micelles in the same manner as hexadecylpyridinium chloride (CPC) quencher. However, HFDePC failed almost entirely to quench in fluorocarbon and hydrocarbon mixts. at higher surfactant concns. in contrast to the CPC quencher. The lack of quenching by only HFDePC is probably due to the formation of micelles rich in fluorocarbon surfactant. Collisions between pyrene and HFDePC have been inhibited during the life span of excited pyrene due to the separated solubilization of probes into two kinds of mixed micelles. Quenching in mixed micelles increased with temperature due to greater miscibility between fluorocarbon and hydrocarbon species.

IT 156991-89-8

RL: RCT (Reactant); RACT (Reactant or reagent) (pyrene fluorescence quenching by 1,1,2,2-tetrahydroheptadecafluorodecyl 1 pyridinium chloride in mixed fluorocarbon-hydrocarbon surfactant micelles)

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 18 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:491809 HCAPLUS Full-text

DN 127:210628

OREF 127:40857a,40860a

TI Micellar Immiscibility of Lithium 1,1,2,2-Tetrahydroheptadecafluorodecyl Sulfate and Lithium Tetradecyl Sulfate Mixture

AU Asakawa, Tsuyoshi; Amada, Kouji; Miyagishi, Shigeyoshi

CS Department of Chemistry and Chemical Engineering Faculty of Engineering, Kanazawa University, Kanazawa, 920, Japan

SO Langmuir (1997), 13(17), 4569-4573

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

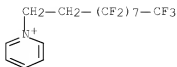
AB The immiscibility of fluorocarbon and hydrocarbon surfactants having the same head groups, i.e., lithium 1,1,2,2-tetrahydroheptadecafluorodecyl sulfate (LiHFDs) and lithium tetradecyl sulfate (LiTS) were studied. The micellar pseudophase diagram was determined by conductivity and fluorescence quenching methods. The coexistence of two kinds of micelles has been demonstrated by the fluorescence quenching of pyrene with a fluorocarbon quencher. Pyrene is located in LiTS-rich micelles, and its fluorescence is quenched by micelle-solubilized quenchers. However, the pyrene fluorescence is hardly quenched by a fluorocarbon quencher when a second type of micelle rich in fluorocarbon surfactant appears. The collision probability between the fluorocarbon quencher and pyrene will be small within the lifetime of the excited pyrene because the fluorocarbon quencher and pyrene are sep. solubilized in LiTS-rich and LiHFDs micelles, resp. The effect of addition of salt on the depression of quenching was also examined

IT 156991-89-8

RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(fluorescent quencher; micellar immiscibility of lithium
tetrahydroheptadecafluorodecyl sulfate and lithium tetradecyl sulfate
mixture)

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 19 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:491588 HCAPLUS Full-text

DN 127:154110

OREF 127:29697a,29700a

TI Fluorescence Quenching Studies of Micellization and Solubilization in Fluorocarbon-Hydrocarbon Surfactant Mixtures

AU Almgren, Mats; Wang, Ke; Asakawa, Tsuyoshi

CS Department of Physical Chemistry, Uppsala University, Uppsala, Swed.

SO Langmuir (1997), 13(17), 4535-4544

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

AB Time-resolved fluorescence quenching studies of nonionic, anionic, and cationic micelles have been performed to compare two surfactant quenchers, a fluorocarbon surfactant quencher, N-(1,1,2,2-tetrahydroperfluorodecyl)pyridinium chloride (HFDePC) and a hydrocarbon quencher of similar hydrophobicity, C16PC, N-hexadecylpyridinium chloride. The concentration dependence of the apparent aggregation nos. informs on the interaction between the surfactants, which always was repulsive for the fluorocarbon quencher in hydrocarbon micelles, except for the case with a nonionic micelle, where the effectively attractive electrostatic interaction dominated at low ionic strength. The simple theory (Almgren, M.; Hansson, P.; Wang, K. Langmuir 1996) suggests that the interaction parameter from the slope of the apparent aggregation number vs. mole fraction quencher should be the same as the interaction parameter describing the change of the critical micelle concentration with composition according to regular solution theory. The results show that it is not so; not even the sign of the interaction parameter is always the same. The reasons for the difference are discussed. For the weight average aggregation number, obtained by extrapolation to zero quencher concentration, the two quenchers gave results within about 10% for a given surfactant; the values with the fluorocarbon quencher seemed to be systematically lower, as if the aromatic probe strongly avoided micelles containing fluorocarbon quenchers. From solubility studies, pyrene was found to prefer a C16TAC micelle over a HFDePC micelle by a factor of 60. The preference of pyrene for micelles without fluorocarbon surfactants was utilized to show the demixing into fluorocarbon-rich and hydrocarbon-rich micelles in a mixture of lithium perfluorononanoate and lithium dodecyl sulfate and in cetyltrimethylammonium chloride and HFDePC.

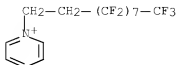
IT 156991-89-8, N-(1,1,2,2-Tetrahydroperfluorodecyl)pyridinium chloride

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(fluorescence quenching studies of micellization and solubilization in surfactant fluorocarbon-hydrocarbon surfactant mixts.)

RN 156991-89-8 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 20 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:211142 HCAPLUS Full-text

DN 126:201666

OREF 126:38947a,38950a

TI Hydrophobic ionic liquids for use in nonaqueous batteries, electrochemical capacitors, electroplating, catalysis and chemical separations

IN Koch, Victor R.; Nanjundiah, Chenniah; Carlin, Richard T.

PA Covalent Associates, Inc., USA

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9702252	A1	19970123	WO 1996-US11097	19960628 <--
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 839139	A1	19980506	EP 1996-923544	19960628 <--
	EP 839139	B1	20030903		
	R: DE, FR, GB				
	JP 2001517205	T	20011002	JP 1998-501552	19960628 <--
	US 5827602	A	19981027	US 1997-932931	19970917 <--
PRAI	US 1995-497310	A	19950630	<--	
	US 1996-673422	B1	19960628	<--	
	WO 1996-US11097	W	19960628	<--	
OS	MARPAT 126:201666				

AB The liqs. comprise a non-Lewis acid-containing polyat. anion having a van der Waals volume >100 Å and a cation selected from substituted pyridinium, substituted pyridazinium, substituted pyrimidinium, substituted pyrazinium, substituted imidazolium, substituted pyrazolium, substituted thiazolium, substituted oxazolium, and substituted triazolium. The substituents in the substituted compds. are either H; F; sep. Cl-4 alkyl groups, or joined together to constitute a unitary C2-4 alkylene radical forming a ring structure converging on N; or sep. Ph groups; and the alkyl groups, alkylene radicals or Ph groups may be substituted with electron withdrawing groups, preferably F, Cl, CF₃, SF₅, CF₃S, (CF₃)₂CHS or (CF₃)₃CS groups. These compds. possess a wide liquidus range, manifest high thermochem. and electrochem. stability, and are hydrophobic in nature. When the cation and/or the anion is fluorinated, hydrophobic ionic liqs. have certain special properties including resistance to extremes of temperature and pressure, resistance to corrosive

acids and bases, and inertness to organic solvents and oxidizing agents, making them especially useful as superior hydraulic fluids and inert liquid diluents for highly reactive chems.

IT 187863-54-3P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(hydrophobic ionic liqs. for use in nonaq. batteries and electrochem. capacitors and electroplating and catalysis and chemical sepsns.)

RN 187863-54-3 HCAPLUS

CN 1H-Imidazolium, 1-(1,1-difluoroethyl)-3-(trifluoromethyl)-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 187863-53-2

CMF C6 H6 F5 N2

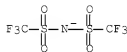


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



L34 ANSWER 21 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1996:717118 HCAPLUS [Full-text](#)

DN 126:95166

ORF 126:18277a,18280a

TI Effect of the counterion on thermodynamic properties of aqueous micellar solutions of 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl) pyridinium halides

AU Fiscaro, E.; Ghiozzi, A.; Pelizzetti, E.; Viscardi, G.; Quagliotto, P. L.

CS Ist. Chimica Fisica Applicata, Univ. Parma, Parma, 43100, Italy

SO Journal of Colloid and Interface Science (1996), 184(1), 147-154

CODEN: JCISA5; ISSN: 0021-9797

PB Academic

DT Journal

LA English

AB The authors report a thermodyn. study of aqueous solns. of 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)pyridinium chloride, bromide, and iodide and N-octylpyridinium iodide. Dilution enthalpies and osmotic coeffs. of the

aqueous solns. of these cationic surfactants were measured at 313 K as a function of the concentration. The exptl. data are expressed in terms of apparent and partial molar quantities. The changes in thermodyn. properties upon micellization were obtained from the exptl. data by using a pseudo phase transition approach. The cmc at 313 K were evaluated from the plot of the milli-osmolality (the measured quantity) vs molality. The effect of temperature on the energetics of their solution can be derived from the comparison with the trends of the enthalpies at 298 K of the same set of compds. The trends of thermodyn. properties vs molality and the micellization parameters confirm that the effect of the counterions (however strong and inversely proportional to the radius of the hydrated counterion) seems to be reduced with respect to the hydrogenated analogs. The curves of the apparent and partial molar enthalpies vs m for the bromide and the iodide are lowered (with respect to the curve of the chloride) by an amount comparable to that at 298 K. This observation suggests that the changes in the absolute trends of the curves and in the micellization enthalpies are due to the modification of the more mobile hydrophobic hydration shell of the perfluoroalkyl chain, while the hydration sphere of the counterions is practically unaffected. The heat capacity data and the comparison with the behavior of hydrogenated analogs is in agreement with the above observation. The trends of the free energies confirm that the degree of counterion binding (β) and the aggregation number (n) increase with the increasing of the radius of the hydrated counterion.

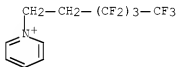
IT 25935-16-4, 1-(3,3,4,4,5,5,6,6-Nonafluorohexyl)pyridinium iodide
183849-00-5, 1-(3,3,4,4,5,5,6,6-Nonafluorohexyl)pyridinium
chloride 183849-01-6, 1-(3,3,4,4,5,5,6,6-Nonafluorohexyl)pyridinium bromide
RL: PRP (Properties)

(counterion effects on fluoroalkylpyridinium halide aqueous micellar solution

thermodyn. properties)

RN 25935-16-4 HCAPLUS

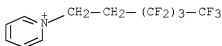
CN Pyridinium, 1-(3,3,4,4,5,5,6,6-nonafluorohexyl)-, iodide (8CI, 9CI) (CA
INDEX NAME)



● I⁻

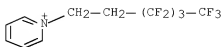
RN 183849-00-5 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6-nonafluorohexyl)-, chloride (1:1) (CA
INDEX NAME)

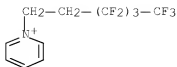


● Cl⁻

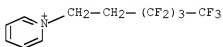
RN 183849-01-6 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-, bromide (1:1) (CA
 INDEX NAME)



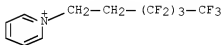
L34 ANSWER 22 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:612149 HCAPLUS Full-text
 DN 125:339637
 OREF 125:63293a,63296a
 TI Effect of the counterion on thermodynamic properties of aqueous micellar solutions of 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl) pyridinium halides. I. Apparent and partial molar enthalpies and volumes at 298 K
 AU Fiscaro, E.; Ghiozzi, A.; Pelizzetti, E.; Viscardi, G.; Quagliotto, P. L.
 CS Ist. Chim. Fis. Appl., Univ. Parma, Parma, 43100, Italy
 SO Journal of Colloid and Interface Science (1996), 182(2), 549-557
 CODEN: JCISA5; ISSN: 0021-9797
 PB Academic
 DT Journal
 LA English
 AB Apparent and partial molar enthalpies and vols. of aqueous solns. of the cationic surfactants 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl) pyridinium halides and N-octyl pyridinium iodide were measured at 298 K as a function of concentration. The changes in thermodyn. properties upon micellization were obtained from the exptl. data by using a pseudo-phase transition approach. The exptl. data allow one to evaluate the effect of the counterion on the energetics of fluorocarbon surfactants solution. This effect (however strong and inversely proportional to the radius of the hydrated counterion) seems to be reduced with respect to the hydrogenated surfactants, at least as far as enthalpic properties of solns. are concerned. In the case of enthalpies, it qual. agrees with that found for the protonated counterparts, but it differs quant. In fact, it is not possible to apply directly the group contribution for counterion obtained from the study of protonated analogs. In the case of volume, the substitution of the counterion simply shifts the absolute scale of volume, but does not affect the change in volume upon micellization.
 IT 25935-16-4, 1-(3,3,4,4,5,5,6,6,6-Nonafluorohexyl)pyridinium iodide 183849-00-5, 1-(3,3,4,4,5,5,6,6,6-Nonafluorohexyl)pyridinium chloride 183849-01-6, 1-(3,3,4,4,5,5,6,6,6-Nonafluorohexyl)pyridinium bromide
 RL: PRP (Properties)
 (counterion effects on thermodyn. of nonafluorohexylpyridinium halide aqueous micellar solns.)
 RN 25935-16-4 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-, iodide (8CI, 9CI) (CA
 INDEX NAME)



RN 183849-00-5 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-, chloride (1:1) (CA INDEX NAME)



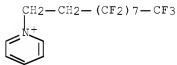
RN 183849-01-6 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-, bromide (1:1) (CA INDEX NAME)



L34 ANSWER 23 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:530855 HCAPLUS Full-text
 DN 125:181259
 OREF 125:33701a,33704a
 TI Electrostatographic bicomponent developer containing fluorine-containing quaternary ammonium and/or iminium derivative as polarity controller
 IN Kato, Takahisa; Nakayama, Nobuhiro; Asahina, Yasuo; Okamoto, Yoshinao; Suzuki, Tomomi
 PA Ricoh Kk, Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08146663	A	19960607	JP 1991-280620	19911001 <--
PRAI	JP 1991-280620		19911001	<--	

- AB The toner comprises (A) a carrier successively coated with a 0.5-1.0- μm inner-resin coating layer containing a resistance controller and a 0.1-0.5- μm surface-coating layer and (B) a toner containing R1R2R3R4N+X- and/or R9R10R12N+:CR1X- as a polarity controller [R1-4, R9-12 = H, organic group; ≥ 1 of R1-4 and ≥ 1 of R9-12 = OH-, CH₂Cl-, carboxylic acid amide-, sulfonic acid amide-, urethane-, amino-, R5OR6-, and/or R7CO₂R8-containing C1-69F3-66 (branched) alkenyl; R5-8 = C1-30 alkyl; ≤ 3 of R1-4 = H, C1-30 (branched) alkyl, (C1-30 alkyl-, C1-30 alkoxy-, OH-, or halo-substituted) aryl, arylalkyl, alkenyl, (C1-30 alkyl-, C1-30 alkoxy-, OH-, or halo-substituted) arylalkyl; 2 of R1-4 and 2 of R9-12 may form (poly)nuclear (substituted) heterocycle; X- = inorg. anion]. The developer showed stable abrasion charge and gave clear images after continuous copying.
- IT 130431-77-5
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (polarity controller; electrostatog. bicomponent developer containing fluorine-containing quaternary ammonium and/or iminium derivative as polarity controller)
- RN 130431-77-5 HCAPLUS
- CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)
- CM 1
- CRN 61798-67-2
- CMF C15 H9 F17 N

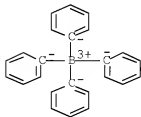


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



DN 125:70211
 OREF 125:13197a,13200a
 TI Liquid hydrophobic salts, their preparation and their application in electrochemistry
 IN Graetzel, Michael; Bonhote, Pierre; Dias, Ana-Paula
 PA Asulab S.A., Switz.; Hydro Quebec; Centre National Dela Recherche Scientifique (CNRS)
 SO Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 718288	A1	19960626	EP 1995-119462	19951211 <--
	EP 718288	B1	20050629		
	R: CH, DE, ES, FR, GB, IT, LI				
	CH 688236	A5	19970630	CH 1994-3862	19941221 <--
	FR 2728569	A1	19960628	FR 1994-15704	19941227 <--
	FR 2728569	B1	19970425		
	ES 2244958	T3	20051216	ES 1995-119462	19951211 <--
	US 5683832	A	19971104	US 1995-574317	19951218 <--
	CN 1132746	A	19961009	CN 1995-119898	19951220 <--
	CN 1061038	C	20010124		
	JP 08259543	A	19961008	JP 1995-348992	19951221 <--
	JP 2006206594	A	20060810	JP 2006-27313	20060203 <--
PRAI	CH 1994-3862	A	19941221	<--	
	FR 1994-15704	A	19941227	<--	
	JP 1995-348992	A3	19951221	<--	

OS MARPAT 125:70211

AB Liquid hydrophobic salts are prepared with the general formula (I, where R1 and R3 are identical or different and each represent a linear or branched alkyl radical, a fluoroalkyl radical or an alkoxyalkyl radical of 1-8 C atoms; and R2, R4, and R5 are identical or different and each represent a H atom or an alkyl radical of 1-3 C atoms). Examples are given of the synthesis of 1-methyl-3-butylimidazolium bis(triflylamide), 1-methyl-3-ethylimidazolium bis(triflylamide), and 1-ethyl-3-butylimidazolium bis(triflylamide) liquid hydrophobic salts by reacting (in an aqueous solution) an imidazolium halide substituted by R1, R2, R3, R4, and R5 on an alkaline bis(triflylamide) (or (CF3SO2)2N-) and separating the obtained product by decantation. An application as an electrolytic solvent in electrochem. photovoltaic cells is suggested. The cell is composed of 2 groups of electrodes separated by a distance of 20 µm. One of the electrodes is coated with a nanoparticulate layer of TiO2 0.3 µm thick on which is absorbed a specified weight of the sensitizer cis-dithiocyanato-bis(2,2'-bipyridyl-4,4'-dicarboxylate of Ru(II)) in an amount such that the absorption of the visible light is only 5% at 520 nm. The free space between the electrodes is filled with an electrolyte composed of the liquid salt with 1-methyl-3-butylimidazolium bis(triflylamide) as the solvent, 10 wt% methylhexylimidazolium iodide and 10 mmol of iodine. Under an illumination corresponding to 1/100 of the standard solar illumination (AM1), an open-circuit voltage of 530 mV and a short-circuit current of 27 µA/cm2 were obtained.

IT 174899-87-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of liquid hydrophobic salts and their application as electrolytic

solvents in electrochem. photovoltaic cells)

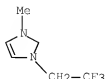
RN 174899-87-7 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoro-N-
[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2

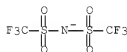


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



L34 ANSWER 25 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1996:104049 HCAPLUS Full-text

DN 124:160062

OREF 124:29443a,29446a

TI Experimental Verification of Demixing Micelles Composed of Fluorocarbon
and Hydrocarbon Surfactants via the Fluorescence-Quenching Method

AU Asakawa, Tsuyoshi; Hisamatsu, Hirofumi; Miyagishi, Shigeyoshi

CS Faculty of Engineering, Kanazawa University, Kanazawa, 920, Japan

SO Langmuir (1996), 12(5), 1204-7

CODEN: LANGD5; ISSN: 0743-7463

PB American Chemical Society

DT Journal

LA English

AB A new cationic surfactant, 1,1,2,2-tetrahydroheptadecafluorodecylpyridiniu m
chloride (HFDePC), quenches the fluorescence emission from pyrene in pure
micelles but hardly quenches it in mixed micelles composed of fluorocarbon and
hydrocarbon surfactants. Pyrene is located in hydrocarbon-rich micelles, and
its fluorescence is quenched by cetylpyridinium chloride. However, HFDePC is
mainly solubilized in fluorocarbon-rich micelles, and a collision probability
between pyrene and HFDePC would be small within the lifetime of the excited
pyrene. I.e., the depression of quenching by HFDePC could be ascribed to the
coexistence of two kinds of mixed micelles. The effects of addition of salt
and temperature toward the depression of quenching were also examined

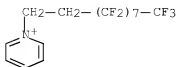
IT 156991-89-8

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(fluorescence quenching of pyrene by tetrahydroheptadecafluorodecylpyri

dinium chloride in micelles)

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

L34 ANSWER 26 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1996:92138 HCAPLUS [Full-text](#)

DN 124:260267

OREF 124:48215a,48218a

TI Hydrophobic, Highly Conductive Ambient-Temperature Molten Salts

AU Bonhôte, Pierre; Dias, Ana-Paula; Papageorgiou, Nicholas; Kalyanasundaram, Kuppaswamy; Graetzel, Michael

CS Institut de chimie physique, Ecole polytechnique federale de Lausanne, Lausanne, CH-1015, Switz.

SO Inorganic Chemistry (1996), 35(5), 1168-78

CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

DT Journal

LA English

AB Hydrophobic ionic liqs. with low m.ps. (<30 °C to ambient temperature) were synthesized and investigated, based on 1,3-dialkyl-1H-imidazolium compds. and hydrophobic anions. Other imidazolium molten salts with hydrophilic anions (water-soluble compds.) were also described. The molten salts were characterized by NMR and elemental anal. Their d., m.p., viscosity, conductivity, refractive index, electrochem. window, thermal stability, and miscibility with water and organic solvents were determined. The influence of the alkyl substituents in 1, 2, 3, and 4(5)-positions on these properties was scrutinized. Viscosities as low as 35 cP [for 1-ethyl-3-methylimidazolium bis[(trifluoromethyl)sulfonyl]amide bis(triflyl)amide and trifluoroacetate] and conductivities as high as 9.6 mS/cm were obtained. Photophys. probe studies were carried out to establish more precisely the solvent properties of 1-ethyl-3-methylimidazolium bis[(trifluoromethyl)sulfonyl]amide]. The hydrophobic molten salts are promising solvents for electrochem., photovoltaic, and synthetic applications.

IT 174899-70-8P 174899-87-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and properties of hydrophobic, highly conductive ambient-temperature molten imidazolium salts)

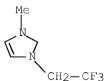
RN 174899-70-8 HCAPLUS

CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoromethanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 37181-39-8

CMF C F3 O3 S



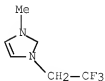
RN 174899-87-7 HCAPLUS

CN 1H-imidazolium, 1-methyl-3-(2,2,2-trifluoroethyl)-, 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1) (CA INDEX NAME)

CM 1

CRN 174899-69-5

CMF C6 H8 F3 N2

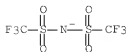


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 98837-98-0

CMF C2 F6 N O4 S2



L34 ANSWER 27 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:758825 HCAPLUS Full-text
 DN 123:156383
 OREF 123:27611a,27614a
 TI Negatively chargeable electrophotographic toner
 IN Kuzamoto, Shinichi; Suzuki, Tomomi
 PA Ricoh Kk, Japan; Showa Denko Kk; Bando Chemical Ind
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07140718	A	19950602	JP 1993-168516	19930615 <--
PRAI	JP 1993-168516		19930615 <--		

AB In the electrophotog. toner comprising a binder resin, a colorant, and a sensitizing agent, the colorant is a salt of a near-IR-absorbing dye and a B-based anion, and the sensitizing agent is a salt of a F-containing quaternary ammonium cation and a B-based anion or a salt of a metal cation and a B-based anion. The toner turns to colorless upon irradiation of near-IR light.

IT 166980-39-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (neg. chargeable electrophotog. toner)

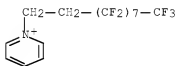
RN 166980-39-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, (T-4)-butyltriphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2

CMF C15 H9 F17 N

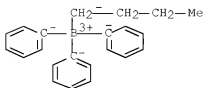


CM 2

CRN 47252-39-1

CMF C22 H24 B

CCI CCS



L34 ANSWER 28 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1995:549337 HCAPLUS Full-text

DN 122:326439

OREF 122:59117a,59120a

TI Dry developer for electrostatography

IN Kuramoto, Shinichi; Asahina, Yasuo; Izumi, Michio; Okamoto, Yoshinao;
Matsuda, Hiroaki; Gohara, Hideo; Mochizuki, Chiharu; Suzuki, Tomomi

PA Ricoh Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAT

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 06337548	A	19941206	JP 1994-84019	19940330 <--
	US 5403690	A	19950404	US 1994-219522	19940329 <--
	DE 4442088	A1	19951012	DE 1994-4442088	19941125 <--
	DE 4442088	C2	19990930		
PRA1	JP 1993-96778	A	19930331	<--	
	JP 1994-84019	A	19940330	<--	

AB The title developer utilizes a toner based on a thermoplastic resin, a colorant, a fluorinated quaternary ammonium salt or a fluorinated iminium compound, and a metal salt of an aromatic hydroxy carboxylic acid. The carrier particles are preferably coated with a silicone or fluorinated acrylic-type resin. The developer is capable of withstanding fluctuations in temperature and humidity, its triboelec. charging characteristics are stable even after continuous use, and quality images can be obtained free of edge effects.

IT 158774-10-8

RL: TEM (Technical or engineered material use); USES (Uses)

(charge-regulator; electrostatog. toner from)

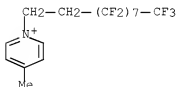
RN 158774-10-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-4-methyl-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 158774-09-5

CMF C16 H11 F17 N

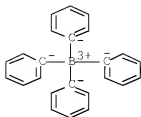


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



L34 ANSWER 29 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1995:454676 HCAPLUS [Full-text](#)

DN 122:250396

OREF 122:45509a,45512a

TI Influence of perfluorinated and hydrogenated surfactants upon hydrogen evolution on gold electrodes

AU Cachet, C.; Keddam, M.; Mariotte, V.; Wiart, R.

CS Phys. Liquides Electrochim., Univ. Pierre et Marie Curie, Paris, 75252, Fr.

SO Electrochimica Acta (1994), 39(18), 2743-50

CODEN: ELCAAV; ISSN: 0013-4686

PB Elsevier

DT Journal

LA English

AB The influence of perfluorinated and hydrogenated surfactants on the mechanism of hydrogen evolution on gold electrodes in 1M H2SO4 was studied from steady-state polarization curves and impedance data. The ohmic drop due to bubbles and the reaction inhibition, consequent on both the electrode surface masking by bubbles and the surfactant adsorption, were separated and compared. The activity of surfactants decreases with the hydrophilic head in the order cationic > anionic > nonionic. Perfluorinated surfactants produce a lower inhibition than the hydrogenated ones on the electrochem. reaction which occurs in a Tafel kinetic regime, independently of the presence of surfactants.

IT 61798-68-3, Forafac F 1098

RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)

(influence of perfluorinated and hydrogenated surfactants upon hydrogen evolution on gold electrodes)

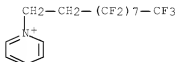
RN 61798-68-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 61798-67-2

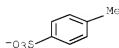
CMF C15 H9 F17 N



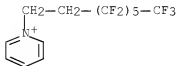
CM 2

CRN 16722-51-3

CMF C7 H7 O3 S

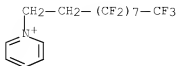


L34 ANSWER 30 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:352276 HCAPLUS Full-text
 DN 122:249071
 OREF 122:45293a,45296a
 TI Micellar Pseudophase Separation Regions of 1H,1H,2H,2H-Perfluoroalkylpyridinium Chloride and Hydrocarbon Surfactants by Group Contribution Method
 AU Asakawa, Tsuyoshi; Hisamatsu, Hirofumi; Miyagishi, Shigeyoshi
 CS Faculty of Technology, Kanazawa University, Kanazawa, 920, Japan
 SO Langmuir (1995), 11(2), 478-82
 CODEN: LANGD5; ISSN: 0743-7463
 PB American Chemical Society
 DT Journal
 LA English
 AB New cationic fluorocarbon surfactants 1H,1H,2H,2H-perfluorooctylpyridinium chloride (HFOPC) and 1H,1H,2H,2H-perfluorodecylpyridinium chloride (HFDePC), are synthesized and their cmc were determined by the conductivity method. HFOPC-DPC (dodecylpyridinium chloride) and HFDePC-CTAC (cetyltrimethylammonium chloride) mixed systems were studied from the viewpoint of micellar miscibility. The mutual solubilities of fluorocarbon and hydrocarbon in the micellar phase are predicted by the group contribution method. One can estimate the micellar pseudophase separation regions by using the mol. structure data and the group interaction parameters and predict the alkyl chain length dependence of immiscibility without addnl. parameters.
 IT 156991-88-7, 1H,1H,2H,2H-Perfluorooctylpyridinium chloride
 156991-89-8, 1H,1H,2H,2H-Perfluorodecylpyridinium chloride
 RL: PRP (Properties)
 (synthesis of new cationic fluorocarbon surfactants and micelle miscibility prediction by functional group contribution method)
 RN 156991-88-7 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-
 , chloride (1:1) (CA INDEX NAME)



● Cl⁻

L34 ANSWER 31 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1995:193392 HCAPLUS Full-text

DN 122:20466

OREF 122:3947a,3950a

TI Electrophotographic dry toners treated with fluorine-containing quaternary ammonium salts or iminium salts

IN Suzuki, Tomomi; Kaneko, Giichi; Kato, Koichi; Nakayama, Nobuhiro

PA Ricoh Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06208248	A	19940726	JP 1993-3600	19930112 <--
FR	JP 1993-3600		19930112	<--	
OS	MARPAT 122:20466				

AB The toners are manufactured by treatment of polyester-based resin particles with R₁R₂R₃R₄N⁺ X⁻ [I; R₁-4 = H, organic group; ≥1 of R₁-4 = C₁-6₉ fluoroalkenyl having 3-66 F which may be substituted with OH, chloromethyl, NH₂ or have carboxamide, sulfonamide, urethane, ether, ester bond, and the other(s) = H, C₁-30 alkyl, aryl, aralkyl, alkenyl (aryl and aralkyl may be substituted with C₁-30 alkyl, C₁-30 alkoxy, OH, halo); 2 of R₁-4 may be bonded to form a C₄-12 mono or polycyclic ring substituted with F, Cl, Br, I, C₁-6 alkyl, C₁-6 alkoxy, NO₂, NH₂, which may have 1-4 heteroatom and 1-6 double bond inserted into the ring skeleton; X⁻ = organic or inorg. anion] or R₉R₁₀ N⁺:CR₁₁R₁₂ X⁻ [II; R₉-12 and X⁻ have the same definitions as R₁-4 and X⁻, resp., in I) in a hydrophilic liquid to adsorb I or II or be penetrated with I or II. The toners are also manufactured by treatment of the polyester-based resin particles dispersed by a hydrophilic solvent-soluble dispersant in a hydrophilic solvent with I or II followed by imposing mech. impact on the resin particles to fix I or II on the particles. The dry toners have small particle size and show good charging property, flowability, fixability, sharp-melting property, antioffset property, and high spectral transmitting characteristics, and are useful for making transparencies.

IT 130431-77-5

RL: MOA (Modifier or additive use); USES (Uses)

(charge-controlling agent; electrophotog. dry toner manufacture by treatment of polyester-based core dispersed in hydrophilic solvent with F-containing quaternary ammonium or iminium salts)

RN 130431-77-5 HCAPLUS

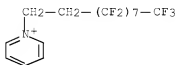
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-

, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2

CMF C15 H9 F17 N

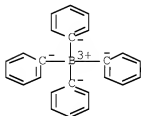


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



L34 ANSWER 32 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:667734 HCAPLUS Full-text

DN 121:267734

OREF 121:48661a,48664a

TI Two-component electrophotographic developer with stable chargeability

IN Nakayama, Nobuhiro; Asahina, Yasuo; Okamoto, Yoshinao; Kato, Takahisa;

Suzuki, Tomomi; Matsuda, Hiroaki

PA Ricoh Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 06043695	A	19940218	JP 1992-155688	19920522 <--
PRAI	JP 1991-263251	A1	19910913	<--	

AB In the title electrophotog. developer comprising a carrier and a toner, the toner contains an F-containing quaternary ammonium salt or F-containing iminium compound as its polar controlling agent, and the carrier has an F-containing resin layer, or a silicone resin layer.

IT 158774-10-8

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(polar controlling agent for electrophotog. toner)

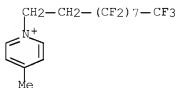
RN 158774-10-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-4-methyl-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 158774-09-5

CMF C16 H11 F17 N

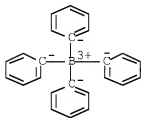


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



L34 ANSWER 33 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:518807 HCAPLUS [Full-text](#)

DN 121:118807

OREF 121:21272h,21273a

TI Thermodynamic properties of aqueous micellar solutions of N-(1H,1H,2H,2H perfluorooctyl)pyridinium chloride and N-(1H,1H,2H,2H perfluorodecyl)pyridinium chloride

AU Fiscaro, E.; Pelizzetti, E.; Viscardi, G.; Quagliotto, P. L.; Trossarelli, L.

CS Istituto di Chimica Fisica Applicata, Universita di Parma, Viale delle Scienze, Parma, 43100, Italy

SO Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1994), 84(1), 59-70

CODEN: CPEAEH; ISSN: 0927-7757

DT Journal

LA English

AB The thermodyn. properties of aqueous solns. of the cationic surfactants N-(1H,1H,2H,2H perfluorooctyl) pyridinium chloride (OctylPFPC) and N-(1H,1H,2H,2H perfluorodecyl) pyridinium chlorides (DecylPFPC), recently

synthesized by the authors, are reported here for the 1st time and compared with those of the corresponding N-alkylpyridinium and N-alkyl nicotinamide halides. Enthalpies of dilution, densities and osmotic coeffs. were measured as a function of concentration. The results were expressed in terms of partial molar quantities. Micellization parameters were obtained by using the pseudophase transition approach. The differences in thermodyn. parameters of micellization between fluorinated surfactants and their protiated counterparts confirm the more pronounced hydrophobic character of the perfluoroalkane moiety, due to the pos. free energy of transferring the -CF₂- group from the singly dispersed to the micellar state, which is higher than that of the -CH₂- group. The results reported here lead to the following suggestions: (i) the additivity rule can be applied also to a homologous series of partially fluorinated cationic surfactants; (ii) the factor 1.5 between -CH₂- and -CF₂- groups obtained from the micellization free energy cannot be transferred to other thermodyn. properties and, in particular, the micellization process is determined by a different balance between entropic and enthalpic factors; (iii) a simple scale factor, taking into account the different steric hindrances of F and H atoms, is not enough to explain all the thermodyn. properties of cationic fluorinated surfactant solns.

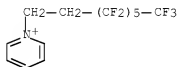
IT 156991-88-7 156991-89-8

RL: PRP (Properties)

(thermodyn. properties of aqueous micellar solns. of)

RN 156991-88-7 HCAPLUS

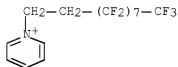
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

RN 156991-89-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, chloride (1:1) (CA INDEX NAME)



● Cl⁻

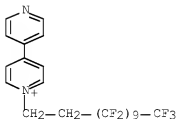
L34 ANSWER 34 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:518498 HCAPLUS [Full-text](#)

DN 121:118498

OREF 121:21209a,21212a

- TI Control of access to surfaces with self-assembling surfactants bearing fluorocarbon chains
- AU Hiley, Shauna L.; Buttry, Daniel A.
- CS Department of Chemistry, University of Wyoming, Laramie, WY, 82071-3838, USA
- SO Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1994), 84(1), 129-40
- CODEN: CPEAEH; ISSN: 0927-7757
- DT Journal
- LA English
- AB Cyclic voltammetry and microgravimetry via the electrochem. quartz crystal microbalance were used to examine ion and solvent transport in self-assembled viologen monolayers on Au metal surfaces. Fluorocarbon chains were incorporated into these viologen monolayers as outer spacers to vary systematically the steric bulk of the monolayer. Ions can be driven electrochem. into and out of the monolayer by virtue of the redox chemical of the viologen group embedded within the monolayer. The transport of these ions provides a straightforward way of evaluating the barrier properties of the fluorocarbon chain region of the monolayer. The authors find that the larger size of these fluorocarbon chains compared with alkyl chains makes a more formidable barrier to ion transport than hydrocarbon outer spacers of viologens in previous studies. Trends in ion-pairing strength and the simultaneous transport of H₂O during ion transport were evaluated for several counter-anions. Relative transport rates for anions of various sizes and hydration nos. were ascertained. The structure and orientation of the monolayers were also studied by using advancing contact angle measurements and IR reflectance spectroscopy.
- IT 156897-86-8P, N-Perfluorodecylethyl-4,4'-bipyridinium diiodide
- RL: SPN (Synthetic preparation); PREP (Preparation)
- (preparation and quaternization reaction of, with diiodoalkanes)
- RN 156897-86-8 HCAPLUS
- CN 4,4'-Bipyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl)-, iodide (1:1) (CA INDEX NAME)



● I-

- L34 ANSWER 35 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
- AN 1994:17595 HCAPLUS Full-text
- DN 120:17595
- OREF 120:3293a,3296a
- TI Adsorption of perfluorinated surfactants on gold electrodes. II. Behavior of ionic compounds
- AU Cachet, C.; Keddam, M.; Mariotte, V.; Wiart, R.
- CS Phys. Liquides Electrochim. Lab., Univ. Pierre et Marie, Paris, 75252, Fr.
- SO Electrochimica Acta (1993), 38(15), 2203-8

CODEN: ELCAAV; ISSN: 0013-4686

DT Journal

LA English

AB The capacitance of a gold rotating disk electrode was measured in Na₂SO₄ electrolyte containing ionic fluorinated surfactants and compared to that obtained with nonionic compds. The adsorption mode of fluorinated surfactants and the interactions between metal and mols. strongly depend on the hydrophilic head of the mols. The adsorption isotherm obtained with the cationic compound (F1098) indicated that the mols. are strongly adsorbed in a flat orientation over the whole potential domain. With the anionic compound (F1176) the results are consistent with an adsorption mode occurring solely at potentials higher than the zero charge potential and generating a hydrophilic bilayer of mols. in the upright orientation, sensitive to the hydrodynamic flow. A comparison with the behavior of nonionic compds. indicates that the hydrophilic head influences the strength of the metal-mols. bonds.

IT 61798-68-3

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(adsorption of, by gold electrode in sodium sulfate solution, capacitance and mol. orientation in relation to)

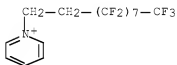
RN 61798-68-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 61798-67-2

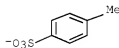
CMF C15 H9 F17 N



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



L34 ANSWER 36 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:546357 HCAPLUS [Full-text](#)

DN 119:146357

OREF 119:26061a,26064a

TI Skin treatment and make-up composition containing a perfluoroalkyl compound

IN Candau, Didier; Mellul, Myriam

PA Oreal S. A., Fr.

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 545786	A1	19930609	EP 1992-403192	19921126 <--
	EP 545786	B1	19961016		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, PT, SE				
	FR 2683998	A1	19930528	FR 1991-14572	19911126 <--
	FR 2683998	B1	19950407		
	AT 144134	T	19961115	AT 1992-403192	19921126 <--
	ES 2093234	T3	19961216	ES 1992-403192	19921126 <--
PRAI	FR 1991-14572	A	19911126	<--	

OS MARPAT 119:146357

AB Addition of 0.01-1% C4-32 perfluoroalkyl (Markush given), such as Fluorad, improves the rheol. and spreading properties of skin-care and makeup cosmetics. Mascara comprised black Fe oxide 6.00, hydroxyethyl cellulose 1.00, gum arabic 1.00, cannauba wax 36.56, ethoxylated glyceryl monostearate 9.14, Fluorad FC 170C 0.20, Me p-hydroxybenzoate 0.18, imidazolidinyurea 0.30, and water to 100 g.

IT 61798-68-3, Forafac 1098

RL: BIOL (Biological study)
 (cosmetics containing, skin-care and makeup)

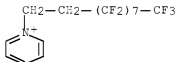
RN 61798-68-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 61798-67-2

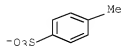
CMF C15 H9 F17 N



CM 2

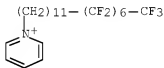
CRN 16722-51-3

CMF C7 H7 O3 S

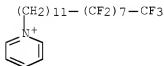


L34 ANSWER 37 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1992:414155 HCAPLUS [Full-text](#)
 DN 117:14155
 OREF 117:2521a,2524a

- TI Treatment of membrane surfaces with oriented monolayers for improved renovation of impaired water
- AU Speaker, L. M.; Russo, G. M.; Quinn, K. B.; Wolf, B. L.; Whitt, T. P.
- CS Fed. Syst. Div., Eastman Kodak Co., Rochester, NY, USA
- SO Report (1991), Order No. PB91-206649, 136 pp. Avail.: NTIS
From: Gov. Rep. Announce. Index (U. S.) 1991, 91(18), Abstr. No. 149,187
- DT Report
- LA English
- AB AFT (antifouling technol.) for separatory membranes was initially demonstrated in 1981 and the method was evaluated against humates and other fouling compds. Surface-modified membranes with Langmuir-Blodgett (LB) films (oriented monomol. films) were used and the selectivity and throughput were evaluated. Materials included 18 surfactants, 5 different types of separatory membranes, and 15 fouling compds. At least 300 membranes were surface-modified and their permeation characteristics followed in more than 150 computer-controlled 23-h tests, in most cases with aqueous Na humate. LB-system vibration problems may have compromised the quality and fouling resistance of some coatings. Both selectivity and cumulative permeate volume of membranes LB-coated with 11-perfluorohexyl undecanoic acid, 11-perfluoroheptyl undecylpyridinium bromide, and 11-perfluorooctyl-undecylpyridinium bromide were superior to those of controls, indicating that LB treatment had simultaneously increased both selectivity and fouling-resistance.
- IT 141893-64-3 141893-65-4
RL: OCCU (Occurrence)
(membranes coated with, performance of, in water purification)
- RN 141893-64-3 HCAPLUS
- CN Pyridinium, 1-(12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentadecafluorooctadecyl)-, bromide (9CI) (CA INDEX NAME)

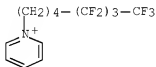


- RN 141893-65-4 HCAPLUS
- CN Pyridinium, 1-(12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,19-heptadecafluorononadecyl)-, bromide (9CI) (CA INDEX NAME)



AN 1992:109881 HCAPLUS [Full-text](#)
 DN 116:109881
 OREF 116:18555a,18558a
 TI Hydrocarbon rich gels
 IN Engelhardt, Friedrich; Ebert, Gerlinde
 PA Cassella A.-G., Germany
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 452758	A2	19911023	EP 1991-105476	19910406 <--
	EP 452758	A3	19920422		
	R: DE, FR, GB, IT, NL				
	DE 4012287	A1	19911024	DE 1990-4012287	19900417 <--
	CA 2040601	A1	19911018	CA 1991-2040601	19910416 <--
	NO 9101488	A	19911018	NO 1991-1488	19910416 <--
FRAI	DE 1990-4012287	A	19900417	<--	
OS	MARPAT 116:109881				
AB	Hydrocarbon-rich gels suitable as fracturing fluids for tertiary recovery and as bases for pharmaceutical preps. and for cosmetics contain hydrocarbons 50-99.5 weight%, surfactants 0.005-20 weight%, and an aqueous solution containing a polymer 0.49-49.99 weight%. Suitable hydrocarbons are C5-16 alkanes, C6 or C7 cycloalkanes, benzene, lead-free gasoline, diesel fuels, or oils such as soy oil, coco oil, avocado oil, iso-Pr stearate, and iso-Pr palmitate. Suitable surfactants include sulfonates and C4-20 aliphatic chains with anionic, cationic, or nonionic hydrophilic ends. Suitable gelling polymers include polyacrylic acid, polyacrylic acid amide, acrylic acid-vinyl acetate copolymers, and 2-acrylamido-2-methylpropanesulfonic acid-acrylic acid amide-N-vinyl-N-methylacetamide copolymer. The composition may also contain a support material such as sand, bentonite, montmorillonite, talc, or kaolinite.				
IT	125187-00-0				
	RL: USES (Uses) (hydrocarbon-rich gel containing water and polymers and, for fracturing fluids and cosmetics and pharmaceuticals)				
RN	125187-00-0 HCAPLUS				
CN	Pyridinium, 1-(5,5,6,6,7,7,8,8,8-nonafluorooctyl)-, iodide (9CI) (CA INDEX NAME)				



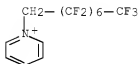
● I⁻

L34 ANSWER 39 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1991:655276 HCAPLUS [Full-text](#)
 DN 115:255276
 OREF 115:43389a,43392a
 TI Synthesis of 2,2,2-trifluoroethylated onium salts of nitrogen, sulfur, and

phosphorus with (2,2,2-trifluoroethyl)phenyliodonium triflate
 AU Umemoto, Teruo; Gotoh, Yoshihiko
 CS Sagami Chem. Res. Cent., Kanagawa, 229, Japan
 SO Bulletin of the Chemical Society of Japan (1991), 64(6), 2008-10
 CODEN: BCSJA8; ISSN: 0009-2673
 DT Journal
 LA English
 OS CASREACT 115:255276
 AB Various 2,2,2-trifluoroethyl onium triflates were synthesized by treating tertiary amines, pyridines, quinoline, a triazole, sulfides, and a phosphine with (2,2,2-trifluoroethyl)phenyliodonium triflate. Sulfoxides and N-oxides were converted to the corresponding trifluoroethylated salts. An application, CsF-treatment of (2,2,2-trifluoroethyl)triphenylphosphonium m triflate with an aldehyde gave a trifluoromethylated olefin.
 IT 25061-59-0P 106241-27-4P 135654-39-6P
 135654-41-0P 135654-43-2P 135654-57-8P
 135654-59-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 25061-59-0 HCAPLUS
 CN Pyridinium, 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)-, salt with trifluoromethanesulfonic acid (1:1) (8CI, 9CI) (CA INDEX NAME)
 CM 1
 CRN 37181-39-8
 CMF C F3 O3 S



CM 2
 CRN 25061-79-4
 CMF C13 H7 F15 N



RN 106241-27-4 HCAPLUS
 CN Pyridinium, 1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 106241-26-3
 CMF C7 H7 F3 N



CM 2

CRN 37181-39-8

CMF C F3 O3 S



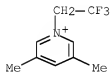
RN 135654-39-6 HCAPLUS

CN Pyridinium, 3,5-dimethyl-1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 135654-38-5

CMF C9 H11 F3 N



CM 2

CRN 37181-39-8

CMF C F3 O3 S

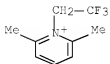


RN 135654-41-0 HCAPLUS

CN Pyridinium, 2,6-dimethyl-1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 135654-40-9
CMF C9 H11 F3 N

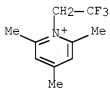


CM 2
CRN 37181-39-8
CMF C F3 O3 S



RN 135654-43-2 HCAPLUS
CN Pyridinium, 2,4,6-trimethyl-1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1
CRN 135654-42-1
CMF C10 H13 F3 N



CM 2
CRN 37181-39-8
CMF C F3 O3 S



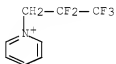
RN 135654-57-8 HCAPLUS

CN Pyridinium, 1-(2,2,3,3,3-pentafluoropropyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 135654-56-7

CMF C8 H7 F5 N



CM 2

CRN 37181-39-8

CMF C F3 O3 S



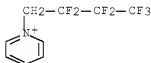
RN 135654-59-0 HCAPLUS

CN Pyridinium, 1-(2,2,3,3,4,4,4-heptafluorobutyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 135654-58-9

CMF C9 H7 F7 N



CM 2

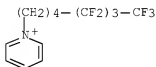
CRN 37181-39-8

CMF C F3 O3 S



L34 ANSWER 40 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1991:636105 HCAPLUS Full-text
 DN 115:236105
 OREF 115:40205a,40208a
 TI Use of hydrocarbon-rich gels as fracturing fluids
 IN Engelhardt, Fritz; Ebert, Gerlinde
 PA Cassella A.-G., Germany
 SO Ger., 8 pp.
 CODEN: GWXXAW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3935999	C1	19910418	DE 1989-3935999	19891028 <--
	EP 425873	A2	19910508	EP 1990-119666	19901013 <--
	EP 425873	A3	19911211		
	EP 425873	B1	19970604		
	R: AT, DE, FR, GB, IT, NL				
	AT 154098	T	19970615	AT 1990-119666	19901013 <--
	US 5082059	A	19920121	US 1990-601269	19901022 <--
	CA 2028680	A1	19910429	CA 1990-2028680	19901026 <--
	NO 9004648	A	19910429	NO 1990-4648	19901026 <--
PRAI	DE 1989-3935999	A	19891028	<--	
OS	MARPAT 115:236105				
AB	Hydrocarbon-rich gels used for fracturing fluids comprise hydrocarbon 50-99.5, surfactant 0.01-15, and water 0.49-35 weight%. The fracturing fluids contain 45-55 weight% hydrocarbon-rich gels and 45-55 weight% proppants, e.g., sand or bentonite. A such hydrocarbon-rich gel comprises C12H25OSO3-Na+ 2.2, hexane 82.3, and water 15.5 weight%.				
IT	125187-00-0				
	RL: USES (Uses)				
	(surfactant, hydrocarbon-rich gels containing, for fracturing fluids)				
RN	125187-00-0 HCAPLUS				
CN	Pyridinium, 1-(5,5,6,6,7,7,8,8,8-nonafluorooctyl)-, iodide (9CI) (CA INDEX NAME)				

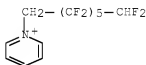


AN 1991:582962 HCAPLUS [Full-text](#)
 DN 115:182962
 OREF 115:31237a,31240a

TI Complexes of (α, α, ω -trihdropolyfluoroalkoxy)trifluorosulfuranes with Lewis acids or hydrogen fluoride as new reagents for the polyfluoroalkylation of sulfides and amines
 AU Markovskii, L. N.; Pashinnik, V. E.; Tovstenko, V. I.; Yaremenko, V. V.; Kolesnik, N. P.; Shermolovich, Yu. G.
 CS Inst. Org. Khim., Kiev, USSR
 SO Zhurnal Organicheskoi Khimii (1990), 26(11), 2451-2
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 AB The treatment of $H(CF_2)_n CH_2OSF_3$ ($n = 6, 8$) with aromatic sulfides and Lewis acids, e.g., SbF_5 , BF_3 , HF , gives sulfonium salts, e.g., $H(CF_2)_n CH_2S^+-Ph_2SbF_6^-$. Similarly, pyridine gives complex I, when treated with SbF_5 and $H(CF_2)_6 CH_2OSF_3$.
 IT 136400-89-0P
 RL: SPN (Synthetic preparation); PREP (Preparation of)
 (preparation of)
 RN 136400-89-0 HCAPLUS
 CN Pyridinium, 1-(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 116525-39-4
 CMF C12 H8 F12 N



CM 2

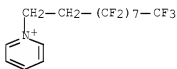
CRN 17111-95-4
 CMF F6 Sb
 CCI CCS



L34 ANSWER 42 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1991:143696 HCAPLUS [Full-text](#)
 DN 114:143696
 OREF 114:24393a,24396a

TI Preparation of fluoroalkylammonium borate salts for use in electrophotography
 IN Gitzel, Joerg; Macholdt, Hans Tobias; Wehowsky, Frank; Prossel, Guenther
 PA Hoechst A.-G., Germany
 SO Ger. Offen., 10 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3936146	A1	19900510	DE 1989-3936146	19891028 <--
	EP 367164	A1	19900509	EP 1989-120057	19891028 <--
	EP 367164	B1	19930224		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	JP 02172990	A	19900704	JP 1989-285047	19891102 <--
	US 5053537	A	19911001	US 1989-430740	19891102 <--
PRAI	DE 1988-3837344	A1	19881103	<--	
	DE 1989-3901153	A1	19890117	<--	
OS	MARPAT 114:143696				
AB	R1R2R3R4N+ R5R6R7R8B- (I; R1-R4 = fluoroalkyl, fluoroalkenyl, H, alkyl, hydroalkyl; R5-R8 = aryl, aralkyl, haloaryl, F) and immonium salts [II; Q = (substituted) (cyclic) (hetero)alkyl optionally containing 2-9 double bonds; R9 = fluoroalkyl; R10 = H, F, Cl, Br, iodo, alkyl, alkoxy, NO2, amino; R11-R14 = F, (halo)aryl, aralkyl], were prepared for use in electrophotog. Thus, title compound III was prepared in 89.7% yield by slow addition of NaB(Ph)4 to a solution of the corresponding pyridinium iodide in Me2CHCH2OH/H2O followed by vigorous stirring for 1 h.				
IT	25935-14-2				
	RL: RCT (Reactant); RACT (Reactant or reagent) (anion exchange reaction of, with sodium tetraphenylborate or sodium tetrafluoroborate)				
RN	25935-14-2 HCAPLUS				
CN	Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)				

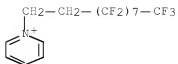


● I-

IT 130431-77-5P 132291-56-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, for use in electrophotog.)
 RN 130431-77-5 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2
 CMF C15 H9 F17 N

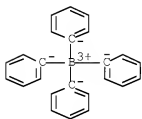


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS



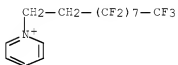
RN 132291-56-6 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2

CMF C15 H9 F17 N



CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L34 ANSWER 43 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1990:621261 HCAPLUS Full-text

DN 113:3721261

OREF 113:37210h,37211a

TI Colorless highly fluorinated ammonium and iminium compounds as charge-controlling agents for electrophotographic toners and developers
IN Gitzel, Joerg; Macholdt, Hans Tobias; Sieber, Alexander; Wehowsky, Frank; Prossel, Guenther
PA Hoechst A.-G., Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3837345	A1	19900510	DE 1988-3837345	19881103 <--
	EP 367162	A2	19900509	EP 1989-120055	19891028 <--
	EP 367162	A3	19900905		
	EP 367162	B1	19950111		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	JP 03001162	A	19910107	JP 1989-283151	19891101 <--
	US 5069994	A	19911203	US 1989-430732	19891102 <--
PRAI	DE 1988-3837345	A	19881103	<--	

OS MARPAT 113:221261

AB Highly fluorinated ammonium compds. of the formula R1R2R3R4N+.X- (R1-R4 = H, and organic group, and ≥ 1 of R1-R4 is a straight- or branched-chain fluorinated alkyl or alkenyl group with 1-69 C atoms and 3-66 F atoms, and at most 3 of R1-R4 = H, branched- or straight-chain alkyl or alkenyl with 1-30 C atoms, aryl, or aralkyl; and X = an organic or inorg. anion) and highly fluorinated iminium compds. of the formula R9R10N+:CR11R12.Y- (R9-R12 = H, an organic group, and ≥ 1 of R9-R12 is a straight- or branched-chain fluorinated alkyl or alkenyl group with 1-69 C atoms and 3-66 F atoms, and at most 3 of R9-R12 = H, branched- or straight-chain alkyl or alkenyl with 1-30 C atoms, aryl, or aralkyl; and Y = an organic or inorg. anion) are described for use as colorless charge-controlling agents in toners and developers for electrophotog. recording processes. Thus, the ammonium compound (C5F11)C11F23CF:CHCH2N+Me3.Ph4B- was prepared and then used in an electrophotog. developer to show a Q/M value (50% relative humidity and activity time of 10 min) of -4.0 $\mu\text{C/g}$.

IT 130431-77-5P

RL: PREP (Preparation)

(preparation of, as charge-controlling agent for electrophotog. toner)

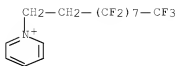
RN 130431-77-5 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, tetraphenylborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2

CMF C15 H9 F17 N

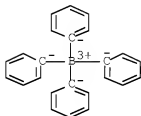


CM 2

CRN 4358-26-3

CMF C24 H20 B

CCI CCS

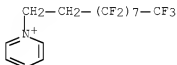


IT 25935-14-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of highly fluorinated ammonium and immonium
comps. charge-controlling agents)

RN 25935-14-2 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-
iodide (8CI, 9CI) (CA INDEX NAME)

L34 ANSWER 44 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1990:165646 HCAPLUS [Full-text](#)

DN 112:165646

OREF 112:27851a,27854a

TI Phase behavior and stability of concentrated emulsions

AU Ruckenstein, E.; Ebert, Gerlinde; Platz, G.

CS Dep. Chem. Eng., State Univ. New York, Buffalo, NY, 14260, USA

SO Journal of Colloid and Interface Science (1989), 133(2), 432-41

CODEN: JCISA5; ISSN: 0021-9797

DT Journal

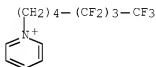
LA English

AB There exists a maximum amount of hydrocarbon that can be incorporated into concentrated emulsions (gel-like emulsions which have a volume fraction of dispersed phase >0.74). The ratio between this maximum amount and the amount of continuous phase depends upon the nature of emulsifier and hydrocarbon mols. and upon the concentration of emulsifier in the continuous phase. Exptl. results are presented in some detail for SDS and Triton X-100 and in less detail for a large number of surfactants. Expts. regarding the effect of salt concentration on the behavior of concentrated emulsions were also carried out; they provide some indications about the nature of the repulsive forces which are responsible for their (kinetic) stability.

IT 125187-00-0
RL: USES (Uses)
(emulsions, hydrocarbon maximum concentration in concentrated)

RN 125187-00-0 HCAPLUS

CN Pyridinium, 1-(5,5,6,6,7,7,8,8,8-nonafluorooctyl)-, iodide (9CI) (CA INDEX NAME)



● I⁻

L34 ANSWER 45 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:460568 HCAPLUS [Full-text](#)

DN 111:60568

OREF 111:10247a,10250a

TI Polysaccharide/perfluoroalkyl complexes

IN Clark, Kirtland P.; Falk, Robert A.

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 12 pp.

CODEN: EPXXDW

DT Patent

LA English

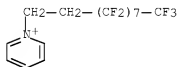
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 311570	A2	19890412	EP 1988-810678	19881003 <--
	EP 311570	A3	19900110		
	EP 311570	B1	19930113		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	US 4859349	A	19890822	US 1987-107434	19871009 <--
	JP 01123802	A	19890516	JP 1988-251015	19881006 <--
	AU 8823557	A	19890413	AU 1988-23557	19881007 <--
	AU 615484	B2	19911003		
	BR 8805181	A	19890523	BR 1988-5181	19881007 <--
	CA 1308098	C	19920929	CA 1988-579564	19881007 <--
PRAI	US 1987-107434	A	19871009	<--	
OS	MARPAT 111:60568				

AB Fire-fighting polymer complexes are formed by binding water-soluble anionic polysaccharides to C4-18-perfluoroalkyl cationic surfactants. The polysaccharide contains acidic carboxyl, sulfonato, sulfato, or phosphato

groups. The perfluoroalkyl surfactant cation has the formula Rf-A-N+R1R2R3 wherein Rf and R1-R3 provide various combinations of C-, F-, N-, O-, P-, and S-containing groups. Impervious gelatinous blankets formed from the polymer complexes are resistant to the fuel and the polymer complexes protect the foam blanket from destruction. The complex is especially useful for fighting fires of hydrophilic or polar liqs.

IT 25935-14-2D, reaction products with anionic polysaccharides
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fire-fighting agents)
 RN 25935-14-2 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



● I-

L34 ANSWER 46 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:98559 HCAPLUS Full-text

DN 110:98559

OREF 110:16243a,16246a

TI Perfluorinated detergent foams for gas scavenging from a petroleum formation

IN Robin, Michel; Demay, Claude

PA Institut Francais du Petrole, Fr.; Atochem S. A.

SO Fr. Demande, 25 pp.

CODEN: FRXXBL

DT Patent

LA French

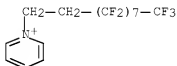
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2609751	A1	19880722	FR 1987-705	19870120 <--
	FR 2609751	B1	19960202		
	EP 281430	A1	19880907	EP 1988-400049	19880111 <--
	EP 281430	B1	19910605		
	R: AT, DE, GB, IT, NL				
	AT 64175	T	19910615	AT 1988-400049	19880111 <--
	HU 46394	A2	19881028	HU 1988-218	19880120 <--
	HU 202307	B	19910228		
	US 4836281	A	19890606	US 1988-146159	19880120 <--
	CA 1304571	C	19920707	CA 1988-556969	19880120 <--
PRAI	FR 1987-705	A	19870120	<--	
	EP 1988-400049	A	19880111	<--	
OS	MARPAT 110:98559				

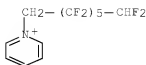
AB The foam comprises a gas, e.g. water vapor, air, N₂, CO₂, CH₄, natural gas, fuel gas, or their mixts., and a solution of a detergent having a perfluorinated compound, e.g. R-Y-X, where R is a perfluorinated radical group, Y is a direct or radical bivalent hydrocarbon connection which may contain ≥1 of O, S, and/or N, and X is a hydrophilic group. A suitable

detergent is N-(heptadecafluorooctyl-2-ethyl)pyridinium iodide, anion exchanged with p-toluenesulfonic acid or Me p-toluenesulfonate. The stable foam containing a 1% aqueous solution of this detergent removed all oil from a petroleum formation.

IT 25935-14-2D, p-anion exchanged with p-toluenesulfonic acid or Me p-toluenesulfonate
 RL: USES (Uses)
 (foams containing, for petroleum recovery)
 RN 25935-14-2 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



L34 ANSWER 47 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1988:610610 HCAPLUS [Full-text](#)
 DN 109:210610
 OREF 109:34831a,34834a
 TI Phenyl(α,α,ω -trihdropolyfluoroalkyl)iodonium tetrafluoroborates
 AU Mironova, A. A.; Soloshonok, I. V.; Maletina, I. I.; Orda, V. V.; Yagupol'skii, L. M.
 CS Inst. Org. Khim., Kiev, USSR
 SO Zhurnal Organicheskoi Khimii (1988), 24(3), 593-8
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 OS CASREACT 109:210610
 AB Treating CF₃CH₂I with 80% aqueous H₂O₂ in (CF₃CO)₂O at 0-20° gave 89% CF₃CH₂I(O₂CCF₃)₂, which reacted with SF₆ in CHCl₃ at -10° to give 91% CF₃CH₂IF₂. I (n = 4) reacted with PhNMe₂ to give 10% p-H(CF₂)₄CH₂NMe₂ and 70% H(CF₂)₄CH₂N+Me₂Ph BF₄⁻. Similarly, I (n = 6) fluoroalkylated pyridine and p-ClC₆H₄SH in CH₂Cl₂ to give 91% pyridinium salt and 71% p-H(CF₂)₆CH₂SC₆H₄Cl, resp., and decomposed to PhI, BF₃ and 89% H(CF₂)₆CH₂F on pyrolysis at 150-160°.
 IT 116525-40-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 116525-40-7 HCAPLUS
 CN Pyridinium, 1-(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoroheptyl)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)
 CM 1
 CRN 116525-39-4
 CMF C12 H8 F12 N



CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



L34 ANSWER 48 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1988:549324 HCAPLUS [Full-text](#)

DN 109:149324

OREF 109:24831a,24834a

TI Synthesis of indolizines from N-(2,2,2-trifluoroethyl)pyridinium triflate;
evidence for the generation of pyridinium (trifluoromethyl)methylide

AU Banks, Ronald Eric; Mohialdin, Suad Najmaldin

CS Inst. Sci. Technol., Univ. Manchester, Manchester, M60 1QD, UK

SO Journal of Fluorine Chemistry (1988), 38(2), 289-93

CODEN: JFLCAR; ISSN: 0022-1139

DT Journal

LA English

OS CASREACT 109:149324

AB Pyridinium salt I was treated with R1C.tplbond.CR1 (R1 = CO2Me, CF3) to give
the resp. indolizines II. I with CF3C.tplbond.CCF3 in CHCl3 containing EtOH
gave dihydroindolizine derivative III.

IT 106241-27-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and cycloaddn. reaction of, with acetylenedicarboxylate ester
and perfluorobutynes)

RN 106241-27-4 HCAPLUS

CN Pyridinium, 1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic
acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 106241-26-3

CMF C7 H7 F3 N



CM 2
 CRN 37181-39-8
 CMF C F3 O3 S



L34 ANSWER 49 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1988:521051 HCAPLUS Full-text

DN 109:121051

OREF 109:19989a,19992a

TI 7,7,8,8-Tetracyanoquinodimethane complexes containing N-fluoroalkyl-4-phenylpyridinium cations

IN Tanaka, Mikiaki; Urano, Fumiyoshi; Nakahata, Masaaki; Nagoya, Mamoru

PA Wako Pure Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63044563	A	19880225	JP 1986-188184	19860811 <--
	JP 06084349	B	19941026		
PRAI	JP 1986-188184		19860811	<--	
OS	CASREACT 109:121051; MARPAT 109:121051				

AB The title complexes, useful for organic semiconductors, are composed of cations I [R1 = F, CF3, CH(CF3)2, CF(CF3)2, (CF2)nCF3; m = 2-7; n = 1-3], TCNQ anion radical (TCNQ⁻), and neutral TCNQ (TCNQ⁰). Treating TCNQ with I iodide (R1 = CF3, m = 3) in MeCN under reflux gave 74.0% dark violet needles (C39H23F3N9), which showed a volume resistivity of 8 Ω-cm, (TCNQ⁰)/(TCNQ⁻) = 1.01, and DSC endothermic point 242° and exothermic decomposition point 277°.

IT 116319-66-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and complexing of, with TCNQ)

RN 116319-66-5 HCAPLUS

CN Pyridinium, 4-phenyl-1-(4,4,4-trifluorobutyl)-, iodide (9CI) (CA INDEX NAME)



L34 ANSWER 50 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1987:49681 HCAPLUS Full-text
 DN 106:49681
 OREF 106:8223a,8226a
 TI 1,1-Dihydroperfluoroalkylations of nucleophiles with (1,1-dihydroperfluoroalkyl)phenyliodonium triflates
 AU Umemoto, Teruo; Gotoh, Yoshihiko
 CS Sagami Chem. Res. Cent., Kanagawa, 229, Japan
 SO Journal of Fluorine Chemistry (1986), 31(2), 231-6
 CODEN: JFLCAR; ISSN: 0022-1139
 DT Journal
 LA English
 OS CASREACT 106:49681
 AB (1,1-Dihydroperfluoroalkyl)phenyliodonium triflates were sources of 1,1-dihydroperfluoroalkyl cations. With a variety of nucleophiles, the corresponding fluoroalkyl derivs. were obtained. Thus, PhNH2 and (CF3CH2)PhI+CF3SO3- in CH2Cl2 gave 92% PhNHCH2CF3.
 IT 106241-27-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 106241-27-4 HCAPLUS
 CN Pyridinium, 1-(2,2,2-trifluoroethyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 106241-26-3
 CMF C7 H7 F3 N



CM 2
 CRN 37181-39-8
 CMF C F3 O3 S



L34 ANSWER 51 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1984:439267 HCAPLUS Full-text

DN 101:39267

OREF 101:6150h,6151a

TI Synthesis and antistatic activity of quaternary ammonium salts containing fluorine in the cation

AU Vasilenok, Yu. I.; Kozlov, N. S.; Serzhanina, V. A.; Yurashevich, N. Ya.; Lagunova, V. N.; Kacherovskaya, F. B.

CS Inst. Fiz.-Org. Khim., Minsk, USSR

SO Vestsi Akademii Navuk BSSR, Seryya Khimichnykh Navuk (1984), (2), 64-70

CODEN: VBSKAK; ISSN: 0002-3590

DT Journal

LA Russian

OS CASREACT 101:39267

AB The antistatic properties and water resistance of polyethylene (I) [9002-88-4], polystyrene [9003-53-6], polypropylene [9003-07-0] and PMMA [9011-14-7] were improved by addition of quaternary ammonium salts containing 1-8 F atoms in the cation. The F-containing quaternary ammonium salts with octadecyl group in the cation had the highest antistatic effect on the polymers. (2-Fluoroethyl)dimethyloctadecylammonium bromide [75877-93-9] was the most effective antistatic agent for I.

IT 90966-52-2

RL: USES (Uses)

(antistatic agents, for polymers)

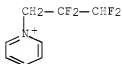
RN 90966-52-2 HCAPLUS

CN Pyridinium, 1-(2,2,3,3-tetrafluoropropyl)-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 90966-51-1

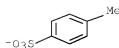
CMF C8 H8 F4 N



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



L34 ANSWER 52 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1984:105517 HCAPLUS Full-text
 DN 100:105517
 OREF 100:16048h,16049a
 TI Perfluoroalkyl anion/perfluoroalkyl cation ion pair complexes
 IN Falk, Robert A.
 PA Ciba-Geigy Corp. , USA
 SO U.S., 14 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4420434	A	19831213	US 1981-223640	19810109 <--
	US 4472286	A	19840918	US 1983-547168	19831031 <--
FRAI	US 1981-223640	A3	19810109	<--	
OS	MARPAT 100:105517				

AB Hydrolytically stable surfactants such as C₆F₁₃CH₂CH₂SCH₂CH(OH)CH₂N+Me₃ C₆F₁₃CH₂CH₂SCH₂CH₂CONH₂Me₂CH₂SO₃⁻ (I) [88992-48-7] and compound II [89018-39-3] are prepared The surfactants are useful for lowering the surface tension of aqueous solns. even at low concns., for the oilproofing of paper and textiles, and as wetting, spreading, and leveling agents, especially in the preparation of aqueous film-forming foam compns. for fighting polar and nonpolar solvent and fuel fires. The foaming compns. for fighting fires have lower surfactant concns., better extinguishing properties, and lower fish toxicity, compared with compns. containing other F-containing surfactants. Thus, a mixture of 0.02 mol C₆F₁₃CH₂CH₂SCH₂CH₂CONH₂Me₂CH₂SO₃Na [62880-93-7] and 0.02 mol C₆F₁₃CH₂CH₂SCH₂CH(OH)CH₂N+Me₃ Cl⁻ [88992-45-4] was dialyzed 48 h in H₂O to give a quant. yield of I. The solubility of I in H₂O was 0.005%. A concentrated aqueous solution of I had surface tension 16.9 dynes/cm. I did not exhibit micellar behavior.

IT 89018-39-3P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation and use as wetting and oilproofing agents and in
 fire-extinguishing foam)

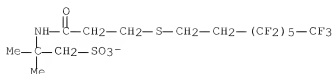
RN 89018-39-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-
 , salt with 2-methyl-2-[[1-oxo-3-[(3,3,4,4,5,5,6,6,7,7,8,8,8-
 tridecafluorooctyl)thio]propyl]amino]-1-propanesulfonic acid (1:1) (9CI)
 (CA INDEX NAME)

CM 1

CRN 88992-47-6

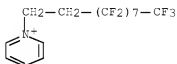
CMF C15 H17 F13 N O4 S2



CM 2

CRN 61798-67-2

CMF C15 H9 F17 N



IT 89001-05-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation and use as wetting and oilproofing agents and in
fire-extinguishing foams)

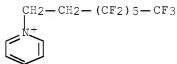
RN 89001-05-8 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, salt with
2-methyl-2-[[[1-oxo-3-[(3,3,4,4,5,5,6,6,7,7,8,8,8-
tridecafluorooctyl)thio]propyl]amino]-1-propanesulfonic acid (1:1) (9CI)
(CA INDEX NAME)

CM 1

CRN 89001-04-7

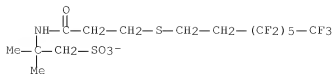
CMF C13 H9 F13 N



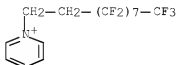
CM 2

CRN 88992-47-6

CMF C15 H17 F13 N O4 S2

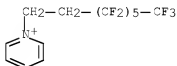


IT 25935-14-2 88992-49-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with fluoroalkyl group-containing sulfonate salt)
 RN 25935-14-2 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



● I⁻

RN 88992-49-8 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, iodide (9CI) (CA INDEX NAME)



● I⁻

L34 ANSWER 53 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1983:422329 HCAPLUS [Full-text](#)

DN 99:22329

OREF 99:3609a,3612a

TI Perfluoroalkylpyridinium salts

PA Sagami Chemical Research Center, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

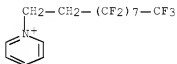
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58039664	A	19830308	JP 1981-137057	19810902 <--
	JP 63041391	B	19880817		
PRAI	JP 1981-137057		19810902	<--	
AB	Title compds. I (R = perfluoroalkyl, X = halo, BF ₄ , ClO ₄ , PF ₄ , PF ₆ , AsF ₄ , AsF ₆ , SbF ₆ , SbF ₄ , sulfonate, carboxylate; n = 0,1) were prepared. Thus, stirring n-C ₈ F ₁₇ I+(Ph)CF ₃ SO-3 with pyridine and CH ₂ :CHCH:CH ₂ in CH ₂ Cl ₂ gave 81% I (R = n-C ₈ F ₁₇ , X = F ₃ CSO ₃ , n = 1).				
IT	82486-08-6P 82486-10-0P				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT				

(Reactant or reagent)
(preparation and elimination reaction of)

RN 82486-08-6 HCAPLUS
CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-
, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 61798-67-2
CMF C15 H9 F17 N



CM 2

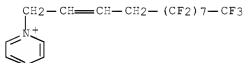
CRN 37181-39-8
CMF C F3 O3 S



RN 82486-10-0 HCAPLUS
CN Pyridinium, 1-(5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heptafluoro-2-dodecenyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 82486-09-7
CMF C17 H11 F17 N

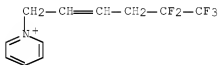


CM 2

CRN 37181-39-8
CMF C F3 O3 S



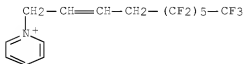
IT 86235-51-0P 86235-53-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 86235-51-0 HCAPLUS
 CN Pyridinium, 1-(5,5,6,6,6-pentafluoro-2-hexenyl)-, salt with
 trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 86235-50-9
 CMF C11 H11 F5 N



CM 2
 CRN 37181-39-8
 CMF C F3 O3 S



RN 86235-53-2 HCAPLUS
 CN Pyridinium, 1-(5,5,6,6,7,7,8,8,9,9,10,10,10-tridecafluoro-2-decenyl)-,
 methanesulfonate (9CI) (CA INDEX NAME)
 CM 1
 CRN 86235-52-1
 CMF C15 H11 F13 N



CM 2

CRN 16053-58-0

CMF C H3 O3 S



L34 ANSWER 54 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1983:402610 HCAPLUS [Full-text](#)

DN 99:2610

OREF 99:523a,526a

TI Differential staining of polyanions according to critical electrolyte concentration principles in mixed solvents

AU Scott, J. E.; Hughes, E. W.

CS Dep. Chem. Morphol., Univ. Manchester, Manchester, M13 9PL, UK

SO Journal of Microscopy (Oxford, United Kingdom) (1983), 129(2), 209-19

CODEN: JMICAR; ISSN: 0022-2720

DT Journal

LA English

AB Three types of cationic reagents, i.e., cellulosic anion exchangers, cationic phthalocyanine dyes, and detergents, formed insol. complexes with the polyanions heparin, chondroitin 4-sulfate, hyaluronate, alginate, and DNA. Dissociation of their complexes by $MgCl_2$ was a critical phenomenon, occurring at a sharply defined concentration, the critical electrolyte concentration (CEC), in H_2O and in H_2O -organic solvent mixts. CECs of polysulfates were always higher than those of polycarboxylates or polyphosphates, especially in the presence of DMSO or EtOH. The latter effect should improve biochem. fractionations and differential histochem. staining of polyanions. A general theor. framework is proposed. Complex formation is promoted by electrostatic attractions and results in a loss of polymer mixing energy. Electrolytes suppress the electrostatic interaction, thus preventing complex formation. More efficient suppression of the electrostatic interaction is required in a worsening solvent, i.e., where a rise in CEC occurs. Plots of CEC against solvent composition are interpreted on these bases. Available data on electrolyte solns. account for specific ionic effects. The dissociation of phthalocyanine dye micelles in aqueous DMSO, etc., was studied spectroscopically. The results support and extend the conclusions derived from the insol. anion-exchange celluloses. The general concepts serve as a bridge between biochem. and histochem. fractionations (i.e. specific staining of substrates).

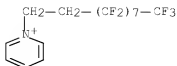
IT 25935-14-2D, polyanion complexes

RL: ANST (Analytical study)

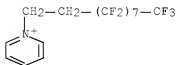
(dissociation of, by magnesium chloride in mixed solvents, polyanions staining in relation to)

RN 25935-14-2 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



L34 ANSWER 55 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1982:455245 HCAPLUS [Full-text](#)
 DN 97:55245
 OREF 97:9293a,9296a
 TI Reactions of perfluoroalkylphenyliodonium trifluoromethanesulfonate free radicals with alkenes and alkadienes
 AU Umemoto, Teruo; Kuriu, Yuriko; Nakayama, Shinichi
 CS Sagami Chem. Res. Cent., Kanagawa, 229, Japan
 SO Tetrahedron Letters (1982), 23(11), 1169-72
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 OS CASREACT 97:55245
 AB Treatment of alkenes or alkadienes with F3C(CF2)nI(Ph)OSO2CF3 [I; n = 2, 7, 8 (II)] gave allylic fluoroalkylation products. E.g., refluxing H2C:CHPh with II in CH2Cl2 for 0.5 h in the presence of pyridine gave 73% (E)-F3C(CF2)8CH:CHPh and PhI. Treatment of I or the related compound F3C(CF2)8I(Ph)OSO4H with alkenes or alkadienes in the presence of nucleophiles gave addition products. E.g., treatment of C2H4 with II and MeOH, with Na2CO3 as base, gave 27% F3C(CF2)8(CH2)2OMe. Addition reactions in moist amides gave esters. E.g., treatment of C2H4 with II in aqueous DMF gave 73% F3C(CF2)8(CH2)2O2CH. Reaction mechanisms are discussed.
 IT 82486-08-6P 82486-10-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by addition reaction of alkene with perfluoroalkylphenyliodonium trifluoromethanesulfonates and nucleophile)
 RN 82486-08-6 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 61798-67-2
 CMF C15 H9 F17 N



CM 2

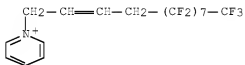
CRN 37181-39-8
CMF C F3 O3 S



RN 82486-10-0 HCAPLUS
CN Pyridinium, 1-(5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heptadecafluoro-2-dodecenyl)-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 82486-09-7
CMF C17 H11 F17 N



CM 2

CRN 37181-39-8
CMF C F3 O3 S



L34 ANSWER 56 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1977:92723 HCAPLUS Full-text
DN 86:92723
OREF 86:14647a,14650a
TI Surface active composition with higher spreading velocity on hydrocarbons
IN Bertocchio, Rene; Foulletier, Louis
PA Uguine Kuhlmann, Fr.
SO Ger. Offen., 20 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2617746	A1	19761111	DE 1976-2617746	19760423 <--

DE 2617746	B2	19770922		
FR 2308674	A1	19761119	FR 1975-12981	19750425 <--
FR 2308674	B1	19790608		
BE 840412	A1	19761006	BE 1976-1007307	19760406 <--
BR 7602388	A	19761012	BR 1976-2388	19760419 <--
JP 51129883	A	19761111	JP 1976-44894	19760419 <--
JP 60057876	B	19851217		
SE 7604719	A	19761026	SE 1976-4719	19760423 <--
SE 437332	B	19850225		
SE 437332	C	19850613		
NL 7604354	A	19761027	NL 1976-4354	19760423 <--
CH 609727	A5	19790315	CH 1976-5148	19760423 <--
CA 1057037	A1	19790626	CA 1976-251085	19760423 <--
PRAI FR 1975-12891	A	19750425	<--	
FR 1975-12891		19750425	<--	

AB Fire-extinguishing foams are provided by mixts. of surfactants which have high rates of spreading on hydrocarbon surfaces. The mixts. consist of a fluorinated cationic surfactant (N-heptadecafluoro-1,1,2,2-tetrahydrodecylpyridinium tosylate (I) [61798-68-3]), a fluorinated ampholytic surfactant, and a fluorinated nonionic surfactant. Thus, a mixture of I 53.5, C6F13CH2CH2(OCH2CH2)12OH [52550-44-4] 10, and C6F13CH2CH2SO2NH(CH2)3N+Me2CH2COO- [61798-69-4] 36.5 weight% as 0.1 mL of a 5% aqueous solution has foaming capacity 350 mL, pH 4, and spreads at <1 and 1.5 s on cyclohexane [110-82-7] and gasoline, resp., which fill half of a crystallization disk with diameter 14.5 cm.

IT 61798-68-3
RL: USES (Uses)
(fire-extinguishing foams containing)

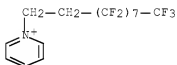
RN 61798-68-3 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, 4-methylbenzenesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 61798-67-2

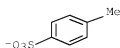
CMF C15 H9 F17 N



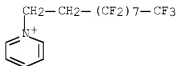
CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



L34 ANSWER 57 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1973:48355 HCAPLUS [Full-text](#)
 DN 78:48355
 OREF 78:7601a,7604a
 TI Adsorption of polyfluorinated organic compounds on nickel in solution.
 II. Experimental results and discussion
 AU Chabert, Pierre; Gravelle, Pierre C.
 CS Dep. Chim.-Phys., Inst. Rech. Catal., Villeurbanne, Fr.
 SO Bulletin de la Societe Chimique de France (1972), (10), 3760-6
 CODEN: BSCFAS; ISSN: 0037-8968
 DT Journal
 LA French
 AB In solns. [(1-40) + 10-3 M] of C8F17(CH2)2X (e.g., X = OH, NH(CH2)2OH, NHPH, SO2NH2, CO2H, SO3H), C6H13(CH2)2SO2NH2, C8F17(CH2)4CO2H, or C8F17CHClCH2OP(O3H)2 in C6H6 or MeOH at 23-35°, the adsorption or reaction [determined by the previously described (C. and G., 1972) spectrophotometric methods] of the fluorinated surfactant with powdered Ni (Raney Ni, or Ni prepared by reduction of NiO with H) depended essentially on the basic, acidic, or neutral nature of the functional group (X), and was essentially the same as the behavior of the corresponding nonfluorinated compound with the same functional group. The compds. with strong acid groups reacted chemical with the Ni and formed Ni soaps. If the soaps were soluble in the solvent or did not form protective coatings on the metal, the reaction was not limited to the metal-solution interface. The compds. with basic, neutral, or weakly acidic groups adsorbed reversibly on the Ni. The adsorption isotherms obeyed the Langmuir model. The mols. were always adsorbed with their long axes nearly perpendicular to the Ni surface. The perfluoroalkyl groups extended outwards and formed a chemical inert surface.
 IT 25935-14-2
 RL: PEP (Physical, engineering or chemical process); PROC (Process) (adsorption of, by nickel)
 RN 25935-14-2 HCAPLUS
 CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



● I-

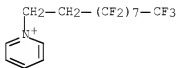
L34 ANSWER 58 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 1973:48352 HCAPLUS [Full-text](#)
 DN 78:48352
 OREF 78:7601a,7604a
 TI Adsorption of polyfluorinated organic compounds on nickel in solution. I.
 Raw materials and experimental techniques
 AU Chabert, Pierre; Gravelle, Pierre C.
 CS Dep. Chim.-Phys., Inst. Rech. Catal., Villeurbanne, Fr.
 SO Bulletin de la Societe Chimique de France (1972), (10), 3752-9
 CODEN: BSCFAS; ISSN: 0037-8968
 DT Journal

LA French
 AB The adsorption, at 20-30°, of C8F17(CH2)2X (e.g., X = OH, NH(CH2)2OH, NHPH, SO2NH2, CO2H, SO3H), C6F13(CH2)2SO2NH2, C8F17(CH2)4CO2H, or C8F17CHClCH2PO3H2, at concns. of 0.5 + 10-3M in purified C6H6 or MeOH, on powdered Ni [Raney Ni with sp. surface area S = 39 m2/g; Ni prepared by reduction of NiO with H, S = 1.9 m2/g] was determined (with an error of 2-3%) by measuring the intensities of the IR absorption bands at 1000-1400 cm-1 of the C-F bonds of the perfluoroalkyl groups in the surfactants in solution before and after equilibration with the powdered Ni. After equilibration of the MeOH solns., the supernatant solution was removed and evaporated to dryness, and the residual fluorinated surfactant was dissolved in MeCN and determined spectrophotometrically. The S values were determined in C6H6 solns. of stearic acid, palmitic acid, or myristic acid by measuring the IR absorption intensities at 1600-1800 cm-1 in solution before and after equilibrium adsorption of the fatty acid on the powdered Ni.

IT 25935-14-2
 RL: PEP (Physical, engineering or chemical process); PROC (Process) (adsorption of, by nickel)

RN 25935-14-2 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



● I-

L34 ANSWER 59 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1970:99469 HCAPLUS Full-text

DN 72:99469

OREF 72:18021a

TI N-(1,1-dihydroperfluorooctyl)pyridinium trifluoromethanesulfonate, a new quaternary ammonium antiseptic

AU Updegraff, David M.; Kvam, D. C.; Robertson, Jerry Earl

CS Cent. Res. Lab., 3M Co., St. Paul, MN, USA

SO Journal of Pharmaceutical Sciences (1970), 59(2), 188-92

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

LA English

AB The synthesis and biol. evaluation of the title compound (I, MBR 3092-42), a highly fluorinated quaternary ammonium antiseptic, are described. The material is structurally related to cetylpyridinium chloride (II). It shows approx. equivalent bacteriostatic activity to II but somewhat less fungistatic activity. The bactericidal activity of I is slightly less than that of II in equal concentration in distilled water or in 10% blood serum, but is slightly greater in 80% human blood. I is also antibacterially equivalent to II on the resident bacterial flora of human skin. Although I slowly decomposed in water at pH 7, it is stable in weakly acidic aqueous or hydroalc. solns. Solutions of I yield much lower surface tension values than equivalent concns. of II.

IT 25061-59-0
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BIOL (Biological study)
(bactericides)

RN 25061-59-0 HCAPLUS

CN Pyridinium, 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)-, salt
with trifluoromethanesulfonic acid (1:1) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 37181-39-8

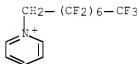
CMF C F3 O3 S



CM 2

CRN 25061-79-4

CMF C13 H7 F15 N



L34 ANSWER 60 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1970:78885 HCAPLUS Full-text

DN 72:78885

OREF 72:14361a,14364a

TI Bactericidal 1,1-dihydroperfluorooctylpyridinium trifluoromethanesulfonate

IN Robertson, Jerry E.

PA Minnesota Mining and Manufacturing Co.

SO U.S., 2 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3488358	A	19700106	US 1967-620665	19670306 <--
PRAI	US 1967-620665	A	19670306	<--	

AB F3CSO3CH2(CF2)6CF3 (5.3 g) was added dropwise with stirring to 1.8 g pyridine in 100 ml MeCOEt and the mixture refluxed 2 days to give 23% title compound (I), m. 110.0-11.5°. I was bactericide and fungicide.

IT 25061-59-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 25061-59-0 HCAPLUS

CN Pyridinium, 1-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)-, salt
with trifluoromethanesulfonic acid (1:1) (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 37181-39-8

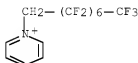
CMF C F3 O3 S



CM 2

CRN 25061-79-4

CMF C13 H7 F15 N



L34 ANSWER 61 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1970:43478 HCAPLUS [Full-text](#)

DN 72:43478

OREF 72:7975a,7978a

TI Quaternary polyfluoroammonium compounds

IN Foulletier, Louis; Lahu, Jean P.

PA Uguine Kuhlmann

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1922277	A	19691120	DE 1969-1922277	19690430 <--
	DE 1922277	C2	19860306		
	FR 1588482	A	19700417	FR 1968-150252	19680502 <--
	BE 732076	A	19691001	BE 1969-732076	19690425 <--
	CH 509966	A	19710715	CH 1969-509966	19690430 <--
	GB 1269095	A	19720329	GB 1969-1269095	19690430 <--
	NL 6906681	A	19691104	NL 1969-6681	19690501 <--
PRAI	FR 1968-150252	A	19680502	<--	

AB The synthesis and properties of the title quaternary ammonium salts are described. A mixture of 28.7 g C8F17C2H4I and 46.5 g α -picoline was heated at 120° with stirring 4 hr to give 29.8 g C8F17C2H4RI (R = α -methylpyridinium), m. 205-10° (decomposition). Similarly prepared were [C8F17C2H4NMeEt2]I, m. 205-15°; C6F13C2H4XI (X = methylpyrrolidinium), m. 195-200° (decomposition); [C8F17C2H4NMe2Ph]I, m. 162-4°; C6F13C2H4XMeSO4, m. 129-32°; [C6F13C2H4NMe2Ph]SO4Me, m. 168-70°; C4F9C2H4YI (Y = pyridinium), m. 140-4°; C8F17C2H4ZI, (Z = quinolinium), m. 160° (decomposition). Solns. of these

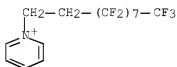
quaternary salts are both hydrophobic and oleophobic and are useful as surfactants and germicides.

IT 25935-14-2P 25935-16-4P 25935-18-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

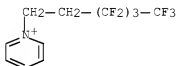
RN 25935-14-2 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



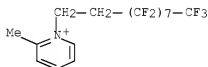
RN 25935-16-4 HCAPLUS

CN Pyridinium, 1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-, iodide (8CI, 9CI) (CA INDEX NAME)



RN 25935-18-6 HCAPLUS

CN 2-Picolinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-, iodide (8CI) (CA INDEX NAME)



L34 ANSWER 62 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1966:465201 HCAPLUS Full-text

DN 65:65201

OREF 65:12108b-d

TI Polyfluoroalkyl-substituted ammonium salts
 IN Brace, Neal O.
 SO 5 pp.
 DT Patent
 LA Unavailable
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3257407		19660621	US 1963-313143	19610406 <--
PRAI	US		19610406	<--	

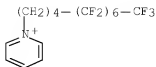
AB Ammonium salts containing a polyfluoroalkyl group, with from 3 to 30 C atoms, exhibit surface active properties; evaporated aqueous solns. cause glass to become both hydrophobic and oleophobic. Thus, 50 parts C7F15I, 15 parts CH2:CH(CH2)8CONH2 and 0.3 parts α,α' -azobis(isobutyronitrile) is heated under N 7 hrs. at 82-85° yielding 49 parts C7F15CH2CHI(CH2)8CONH2 (I), m. 99.5-101° (CHC13). A slurry of 5.5 parts LiAlH4 in 142 parts dry Et2O is placed in a vessel fitted with a addition funnel, a N inlet and a Soxhlet extractor. I (43 parts) is placed in the extractor cup and covered with 71 parts Et2O. The reaction vessel is heated to reflux until all I was dissolved (20 hrs.). Reflux is continued for an addnl. 24 hrs. To the cooled reaction mixture is added 14 parts EtOAc; then 6 parts H2O is added dropwise followed by 70 parts Et2O, 5 parts 20% NaOH solution and 20 parts H2O. The Et2O solution is decanted and the slurry washed with Et2O which distillation yields 24.2 parts C7F15(CH2)11NH2 (II), b1 122°, m. 80-6°. To a mixture of 70 parts Et2O and 80 parts EtOH is added 17 parts II; addition of anhydrous HCl precipitated C7F15(CH2)11NH2.HCl (III). The surface tension of a 0.4 and 0.2% aqueous solution of III is 18.4 and 20.3 dynes/cm., resp. Similarly prepared were (X = pyridino): [C3F7(CH2)4X]I, m. 79-80.7°; [C7F15(CH2)4-X]I, m. 95°; C3F7(CH2)5NH2.HCl, m. 121-2°; C4F9(CH2)3NH2.HCl.

IT 10496-31-8P, Pyridinium, 1-(5,5,6,6,7,7,7-heptafluoroheptyl)-, iodide 10496-32-9P, Pyridinium, 1-(5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-pentadecafluorodecyl)-, iodide
 RL: PREP (Preparation)
 (preparation of)

RN 10496-31-8 HCAPLUS
 CN Pyridinium, 1-(5,5,6,6,7,7,7-heptafluoroheptyl)-, iodide (8CI) (CA INDEX NAME)



RN 10496-32-9 HCAPLUS
 CN Pyridinium, 1-(5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-pentadecafluorodecyl)-, iodide (8CI) (CA INDEX NAME)



L34 ANSWER 63 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1950:2938 HCAPLUS [Full-text](#)

DN 44:2938

OREF 44:536f-1,537a-b

TI Toxic fluorine compounds containing the C-F link. V. Fluorine-containing ammonium salts. Relationship between physiological action and chemical constitution

AU Saunders, B. C.; Wilding, I. G. E.

SO Journal of the Chemical Society (1949) 1279-82

CODEN: JCSOA9; ISSN: 0368-1769

DT Journal

LA Unavailable

AB H2NCH2CO2Et (2.8 g.) and 1.94 g. FCH2COCl in 25 cc. 2 N Na2CO3, shaken until CO2 evolution ceases, give Et (α -fluoroacetamido)acetate, m. 50-50.5°, LD50 20 mg./kg. (mice, delayed convulsant action); no reaction occurs with H2NCH2CO2H (I) or with (FCH2CO)2O. I (7.5 g.) and 37 g. FCH2CH2OH (II), refluxed and treated with dry HCl (1 hr.), give 80% 2-fluoroethyl aminoacetate-HCl, m. 150-50.5°, LD50 approx. 10 mg./kg. Betaine and II do not react, but ClCH2COCH2CH2F and Me3N, mixed at the temperature of solid CO2-ether and allowed to warm to room temperature, give 80% (2-fluoroethyl) betaine-HCl [Me3NCH2CO2CH2CH2F]+Cl-, hygroscopic, m. 122°, LD50 45 mg./kg. FCH2CH2Br (III) and Me3N in a sealed tube (1.5 hrs. at room temperature) give 14% trimethyl(2-fluoroethyl)ammonium bromide, m. 244°; 10.1 g. Et3N and 12.7 g. III, refluxed 3 hrs., give 4 g. 2-fluorotetraethylammonium bromide, m. 237°; III and C5H5N, refluxed 15 min., give 53% 1-(2-fluoroethyl)pyridinium bromide, hygroscopic, m. 180°. PhNMe2 (24.2 g.) and 25.4 g. III, refluxed 4.75 hrs., give 4 g. [Me2N+HC6H4CH2CH2N+HMe2]Br2-, m. 199°. Et nicotinate (4 g.) and 12 g. III, heated 3 hrs. at 20°, give 3-carbethoxy-1-(2-fluoroethyl)pyridinium bromide, m. 86-8°, LD50 200 mg./kg. (picrate, yellow, m. 128-9°). No reaction occurs between III and nicotinic acid. The toxic properties of the compds. containing the C-F link described in parts I-V are reviewed and certain conclusions are drawn regarding the relationship between physiol. action and chemical constitution. Five classes of compds. are considered, the toxicity of FCH2CO2H being represented by B: A, FCH2CO2CH2CH2F; B+, FCH2CO2EtCH2CH2Cl; B, FCH2CO2H and salts, esters, amides, FCH2COCl, FCH2COF, FCH2CH2OH and its esters, and FCH2CHO; C, FCH2CN, certain ethers, and FCH2COSEt; D, R'CHFCO2R, R'R'CFCO2R, AcF, ClCH2COF, alkyl fluoroformates, quaternary NH4 salts, ClCH2CH2F, and S-containing compds.

IT 332-23-0P, Pyridinium, 1-(2-fluoroethyl)-, bromide

RL: PREP (Preparation)

(preparation of)

RN 332-23-0 HCAPLUS

CN Pyridinium, 1-(2-fluoroethyl)-, bromide (8CI, 9CI) (CA INDEX NAME)



L34 ANSWER 64 OF 64 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1947:13764 HCAPLUS [Full-text](#)

DN 41:13764

OREF 41:2807g-1,2808a-h

TI Fluoroacetates and allied compounds

AU McCombie, H.; Saunders, B. C.

CS Cambridge Univ., UK

SO Nature (London, United Kingdom) (1946), 158, 382-5

CODEN: NATUAS; ISSN: 0028-0836

DT Journal

LA Unavailable

AB Convulsant poisons with delayed action containing the $\text{-CH}_2\text{F}$ group have been synthesized and investigated pharmacologically. The firm binding of the F renders chemical detection and decontamination difficult. A compound of outstanding interest is 2-fluoroethyl fluoroacetate $\text{FCH}_2\text{COOCH}_2\text{CH}_2\text{F}$ (I) prepared by the action of fluoroacetyl chloride (II) on 2-fluoroethyl alc. (III). A 10-min. exposure to 0.092 g. I/cu. m. killed 70% of the rabbits, guinea pigs, and rats tested and 0.05 g. I/cu. m. killed 50% of rabbits. About half as toxic are Me fluoroacetate (IV), b. $104^\circ\text{ m. -35}^\circ$ and Et, Pr, and iso-Pr fluoroacetates, prepared by heating the corresponding chloroacetates with KF in a rotating autoclave. IV usually produced convulsions 30-60 min. after exposure and death within a few hrs.; 0.1 g./cu. m. inhaled 10 min. killed 50% of the rabbits and guinea pigs (mice were somewhat more resistant), and 0.25 mg./kg. injected intravenously killed 50% of the rabbits. Claisen ester condensation of IV gave Me α γ -difluoroacetoacetate. Fluoroacetamide (V), prepared from NH_3 and IV, was useful for characterization purposes and as an intermediate in the preparation of fluoroacetic acid (VI). V and VI were as toxic as IV on intravenous injection into rabbits. FCH_2CN , b. 80° prepared by distillation of V with phosphoric anhydride, was more toxic to rabbits than to smaller animals. Substituted amides prepared included $\text{FCH}_2\text{CONHMe}$, $\text{FCH}_2\text{CON}(\text{NO})\text{Me}$, $\text{FCH}_2\text{CONH}(\text{CH}_2)_2\text{OH}$, $\text{FCH}_2\text{CONH}(\text{CH}_2)_2\text{Cl}$, and $\text{FCH}_2\text{CON}(\text{CH}_2\text{CH}_2\text{Cl})_2$. Na fluoroacetate (VII) was obtained by a new method from IV. II and fluoroacetyl fluoride were similar to IV in toxicity. Fluoroacetic anhydride, prepared from VII and II, were rather more toxic by inhalation than IV. Et N-fluoroacetyl-glycine and cholesterol fluoroacetate were considerably less toxic than IV. III, b. 101° completely miscible with H_2O , prepared by heating ethylene chlorohydrin with KF in the rotating autoclave, was about as toxic as IV. I, III, and IV had extremely faint odors. Fluoroacetaldehyde, prepared by oxidation of III with MnO_2 and H_2SO_4 , was a liquid which polymerized on standing and was similar to III in toxicity. $\text{FCH}_2\text{CH}_2\text{Cl}$ obtained, by the action of SOCl_2 on III, was nontoxic; it reacted with $\text{C}_6\text{H}_5\text{ONa}$ to give Ph 2-fluoroethyl ether, considerably less toxic than IV. $\text{FCH}_2\text{CH}_2\text{Br}$ (VIII) reacted with KSCN to give fluoroethyl thiocyanate, which on treatment with $\text{Cl-H}_2\text{O}$ gave fluoroethylsulfonfyl chloride, nontoxic. Bis(2-fluoroethyl) sulfate, $(\text{FCH}_2\text{CH}_2\text{O})_2\text{SO}_2$, proved useful as a fluoroethylating agent, e.g., in the reaction with β -naphthol in alkaline solution to form fluoroethyl naphthyl ether. 2-Chloroethyl fluoroacetate and 2-fluoroethyl chloroacetate (IX) were

somewhat more toxic, while 2-fluoroethyl acetate and FCH2COSCH2CH2Cl were less toxic than IV. S,S'-Bis(2-fluoroethyl)-dithioglycol (X) FCH2CH2SCH2CH2SCH2CH2F, ("sesqui-fluoro-H") was nonvesicant and nontoxic, in contrast to S, S'-bis(2-chloroethyl)dithioglycol ("sesqui-H"). X was prepared by the following reactions: VIII + NaSH → FCH2CH2SH → FCH2CH2SNa (XI); VIII + 2 XI → X. VIII reacted with trimethylamine, triethylamine, and pyridine to form (2-fluoroethyl)trimethylammonium bromide, (2-fluoroethyl)triethylammonium bromide, and (2-fluoroethyl)pyridinium bromide, resp., all not very toxic. Treatment of VIII with dimethylaniline gave 2-Fluoroethylglycine-HCl, prepared by Fischer-Speier esterification of glycine with III, and 2-fluoroethylbetaine-HCl, prepared by reaction of anhydrous trimethylamine and IX, had subcutaneous LD50 values of 10 and 45 mg./kg. for mice. Fluoroacetylsalicylic acid (fluoroaspirin) caused initial stupor without convulsions in mice. Bis(2-fluoroethyl)fluorophosphonate, obtained by the action of POCl2F on III caused miosis, and at a concentration of 0.5 g./cu. m. (10 min. exposure) produced in 2 of 6 rats a remarkable state of hyperactivity followed by convulsions, coma, and death. Triethyllead fluoroacetate, FCH2COOPbEt3, had sternutatory and, upon injection, convulsant properties. No toxic action was shown by compds. devoid of the FCH2- group, i.e. Me α-fluoropropionate, Me α-fluoroisobutyrate, chloroacetyl fluoride, and Et fluoroformate.

IT 332-23-0F, Pyridinium, 1-(2-fluoroethyl)-, bromide

RL: PREP (Preparation)

(preparation and pharmacology of)

RN 332-23-0 HCAPLUS

CN Pyridinium, 1-(2-fluoroethyl)-, bromide (8CI, 9CI) (CA INDEX NAME)



● Br⁻

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(FILE 'HOME' ENTERED AT 13:36:14 ON 14 AUG 2008)

SET COST OFF

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L3          STR
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L5 (        218)SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 AND 1/NC
L6 (        182)SEA FILE=REGISTRY ABB=ON  PLU=ON  L4 NOT L5
L7 (          3)SEA FILE=REGISTRY ABB=ON  PLU=ON  L6 NOT NCNC2/ES
L8 (        179)SEA FILE=REGISTRY ABB=ON  PLU=ON  L6 NOT L7
L9 (        126)SEA FILE=REGISTRY ABB=ON  PLU=ON  L8 AND 1/NR
L10 (         9)SEA FILE=REGISTRY ABB=ON  PLU=ON  L9 AND (C10H10F13N2S OR C10H1

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      ACT LEE516B/A
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FILE 'HCAPLUS' ENTERED AT 13:46:30 ON 14 AUG 2008

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L35      8 S L30,L32 NOT L34

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